Network Working Group Request for Comments: 5000

STD: 1

Obsoletes: 3700

Category: Informational

RFC Editor USC/ISI May 2008

#### Internet Official Protocol Standards

#### Status of This Memo

This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

#### IESG Note

This document obsoletes RFC 3700. It also reclassifies RFCs that were previously published as STD 1 as Historic. More specifically, this RFC moves RFCs 3000, 3300, 3600, and 3700 to Historic status.

#### Abstract

This document is published by the RFC Editor to provide a summary of the current standards protocols (as of 18 February 2008). It lists those official protocol standards, Best Current Practice, and Experimental RFCs that have not been obsoleted; it is not a complete index to the RFC series. Newly published RFCs and RFCs whose status has changed are starred.

For an up-to-date list, see http://www.rfc-editor.org/rfcxx00.html, which is updated daily.

### Table of Contents

| 1. | Overview                                    |
|----|---|
| 2. | RFC Resources and Retrieval                 |
|    | Current Technical Specifications            |
|    | 3.1. Standard Protocols Ordered by STD      |
|    | 3.2. Standard Protocols Ordered by RFC6     |
|    | 3.3. Draft Standard Protocols8              |
|    | 3.4. Proposed Standard Protocols11          |
|    | 3.5. Best Current Practice Ordered by BCP57 |
|    | 3.6. Best Current Practice Ordered by RFC62 |
|    | 3.7. Experimental Protocols67               |
| 4. | Security Considerations74                   |

RFC Editor Informational [Page 1]

#### 1. Overview

This memo contains a snapshot of the state of standardization of protocols used in the Internet, as determined by the Internet Engineering Task Force (IETF). It is a 18 February 2008 snapshot of the current official protocol standards list and the Best Current Practice list, which is updated daily and is available from the RFC Editor Web site.

The RFC Editor publishes Request for Comments (RFC) documents that are the output of 4 streams: IAB, IETF, IRTF, and Independent Submission via the RFC Editor.

This memo is published by the RFC Editor for the IESG and IAB, in which the categorizations are in accordance with Section 2.1 of "The Internet Standards Process -- Revision 3", RFC 2026, which specifies the rules and procedures by which all Internet standards are set. Sections 3.1 - 3.7 of this memo contain the lists of protocols in each stage of standardization - Standard, Draft Standard, Proposed Standard, Experimental, as well as Best Current Practice documents. Protocols that are new to this document or have been moved from one protocol level to another, or that differ from the previous edition of this document are marked with an asterisk. Informational and Historic RFCs are not included. This list is not a complete index to RFCs.

#### 2. RFC Resources and Retrieval

This list is a live document that is updated daily on the RFC Editor site at:

http://www.rfc-editor.org/rfcxx00.html

RFCs are available online via http and ftp as:

http://www.rfc-editor.org/rfc/rfcXXXX.txt ftp://ftp.rfc-editor.org/in-notes/rfcXXXX.txt

where XXXX represents the corresponding RFC number.

The RFC Editor maintains the official repository of all RFCs and indexes to them. The site also provides additional information about the history of the RFC Editor, current submission and review procedures, and editorial and publication procedures. Please see the RFC Editor site for all other RFC related information:

http://www.rfc-editor.org

# 3. Current Technical Specifications

## 3.1. Standard Protocols Ordered by STD

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic  | Title   | RFC#  | STD# |
|-----------|---|-------|------|
|           | Internet Official Protocol Standards  | 5000* | 1    |
|           | [Reserved for Assigned Numbers. See RFC 1700 and RFC 3232.]   | XXX   | 2    |
|           | Requirements for Internet Hosts - Communication Layers  | 1122  | 3    |
|           | Requirements for Internet Hosts - Application and Support   | 1123  | 3    |
|           | [Reserved for Router Requirements. See RFC 1812.]   | XXX   | 4    |
| IP        | Internet Protocol   | 791   | 5    |
| ICMP      | Internet Control Message Protocol   | 792   | 5    |
|           | Broadcasting Internet Datagrams   | 919   | 5    |
|           | Broadcasting Internet datagrams in the presence of subnets  | 922   | 5    |
|           | Internet Standard Subnetting Procedure  | 950   | 5    |
| IGMP      | Host extensions for IP multicasting   | 1112  | 5    |
| UDP       | User Datagram Protocol  | 768   | 6    |
| TCP       | Transmission Control Protocol   | 793   | 7    |
| TELNET    | Telnet Protocol Specification   | 854   | 8    |
| FTP       | File Transfer Protocol  | 959   | 9    |
|           | ["Mail routing and the domain system". Was RFC 974 (STANDARD), Now HISTORIC.]   | XXX   | 10   |
| SMTP      | <pre>["Simple Mail Transfer Protocol". Was RFC 821   (STANDARD), Obsoleted by RFC 2821 (PROPOSED   STANDARD)]</pre>           | XXX   | 10   |
|           | <pre>["SMTP Service Extensions". Was RFC 1869   (STANDARD), Obsoleted by RFC 2821 (PROPOSED   STANDARD)]</pre>                | XXX   | 10   |
| SMTP-SIZE | SMTP Service Extension for Message Size Declaration   | 1870  | 10   |
| MAIL      | ["STANDARD FOR THE FORMAT OF ARPA INTERNET TEXT MESSAGES". Was RFC 822 (STANDARD), Obsoleted by RFC 2822 (PROPOSED STANDARD)] | XXX   | 11   |
|           | [Reserved for Network Time Protocol (NTP). See RFC 1305.]   | xxx   | 12   |
| DOMAIN    | Domain names - concepts and facilities  | 1034  | 13   |
| DOMAIN    | Domain names - implementation and specification   | 1035  | 13   |
|           | [Was Mail Routing and the Domain System. Now Historic.]   | xxx   | 14   |
|           | [Was Simple Network Management Protocol. Now Historic.]   | xxx   | 15   |

RFC Editor Informational [Page 3]

| CMT       | Ot   | 1155  | 1 / |
|-----------|--|-------|-----|
| SMI       | Structure and identification of management         | 1155  | 16  |
|           | information for TCP/IP-based internets             |       |     |
|           | Concise MIB definitions                            | 1212  | 16  |
| MIB-II    | Management Information Base for Network Management | 1213  | 17  |
|           | of TCP/IP-based internets:MIB-II                   |       |     |
|           | [Was Exterior Gateway Protocol (RFC 904). Now      | XXX   | 18  |
|           | Historic.]   |       |     |
| NETBIOS   | Protocol standard for a NetBIOS service on a       | 1001  | 19  |
|           | TCP/UDP transport: Concepts and methods            |       |     |
| NETBIOS   | Protocol standard for a NetBIOS service on a       | 1002  | 19  |
|           | TCP/UDP transport: Detailed specifications         |       |     |
| ECHO      | Echo Protocol                                      | 862   | 20  |
| DISCARD   | Discard Protocol                                   | 863   | 21  |
| CHARGEN   | Character Generator Protocol                       | 864   | 22  |
| QUOTE     | Quote of the Day Protocol                          | 865   | 23  |
| USERS     | Active users                                       | 866   | 24  |
| DAYTIME   | Daytime Protocol                                   | 867   | 25  |
| TIME      | Time Protocol                                      | 868   | 26  |
|           |  | 0     | 27  |
| TOPT-BIN  | Telnet Binary Transmission                         |       | 28  |
| TOPT-ECHO | Telnet Echo Option                                 | 0     | _   |
| TOPT-SUPP | Telnet Suppress Go Ahead Option                    | 0     | 29  |
|           | Telnet Status Option                               | 859   | 30  |
| TOPT-TIM  | Telnet Timing Mark Option                          | 0     | 31  |
|           | Telnet Extended Options: List Option               | 0     | 32  |
| TFTP      | The TFTP Protocol (Revision 2)                     | 1350  | 33  |
|           | [Was Routing Information Protocol (RIP). Replaced  | XXX   | 34  |
|           | by STD 56.]  |       |     |
| TP-TCP    | ISO Transport Service on top of the TCP Version: 3 | 1006  | 35  |
| IP-FDDI   | Transmission of IP and ARP over FDDI Networks      | 1390  | 36  |
| ARP       | Ethernet Address Resolution Protocol: Or           | 826   | 37  |
|           | Converting Network Protocol Addresses to 48.bit    |       |     |
|           | Ethernet Address for Transmission on Ethernet      |       |     |
|           | Hardware   |       |     |
| RARP      | A Reverse Address Resolution Protocol              | 903   | 38  |
| IP-ARPA   | [Was BBN Report 1822 (IMP/Host Interface). Now     | XXX   | 39  |
|           | Historic.]   |       |     |
| IP-WB     | Host Access Protocol specification                 | 907   | 40  |
| IP-E      | A Standard for the Transmission of IP Datagrams    | 894   | 41  |
|           | over Ethernet Networks                             | 0,7 1 |     |
| IP-EE     | Standard for the transmission of IP datagrams over | 895   | 42  |
| 11 111    | experimental Ethernet networks                     | 0,7,5 | 12  |
| IP-IEEE   | Standard for the transmission of IP datagrams over | 1042  | 43  |
| TE-TEEE   | IEEE 802 networks                                  | 1042  | 43  |
| TD DC     | DCN Local-Network Protocols                        | 0.01  | 44  |
| IP-DC     |  | 891   |     |
| IP-HC     | Internet Protocol on Network System's              | 1044  | 45  |
| TD 3D2    | HYPERchannel: Protocol Specification               | 1001  | 4 - |
| IP-ARC    | Transmitting IP traffic over ARCNET networks       | 1201  | 46  |

| IP-SLIP    | Nonstandard for transmission of IP datagrams over serial lines: SLIP                                | 1055  | 47 |
|------------|---|-------|----|
| IP-NETBIOS | Standard for the transmission of IP datagrams over NetBIOS networks                                 | 1088  | 48 |
| IP-IPX     | Standard for the transmission of 802.2 packets over IPX networks                                    | 1132  | 49 |
|            | [Reserved for Definitions of Managed Objects for the Ethernet-like Interface Types. See RFC 3638.]  | xxx   | 50 |
| PPP        | The Point-to-Point Protocol (PPP)   | 1661  | 51 |
| PPP-HDLC   | PPP in HDLC-like Framing  | 1662  | 51 |
| IP-SMDS    | The Transmission of IP Datagrams over the SMDS Service  | 1209  | 52 |
| POP3       | Post Office Protocol - Version 3  | 1939  | 53 |
| OSPF2      | OSPF Version 2  | 2328  | 54 |
| IP-FR      | Multiprotocol Interconnect over Frame Relay   | 2427  | 55 |
| RIP2       | RIP Version 2   | 2453  | 56 |
| RIP2-APP   | RIP Version 2 Protocol Applicability Statement  | 1722  | 57 |
| SMIv2      | Structure of Management Information Version 2 (SMIv2)   | 2578  | 58 |
| CONV-MIB   | Textual Conventions for SMIv2   | 2579  | 58 |
| CONF-MIB   | Conformance Statements for SMIv2  | 2580  | 58 |
| RMON-MIB   | Remote Network Monitoring Management Information Base   | 2819  | 59 |
| SMTP-Pipe  | SMTP Service Extension for Command Pipelining   | 2920  | 60 |
| ONE-PASS   | A One-Time Password System  | 2289  | 61 |
| ARCH-SNMP  | An Architecture for Describing Simple Network   | 3411  | 62 |
|            | Management Protocol (SNMP) Management Frameworks  |       |    |
| MPD-SNMP   | Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)                | 3412  | 62 |
| SNMP-APP   | Simple Network Management Protocol (SNMP) Applications  | 3413  | 62 |
| USM-SNMPV3 | User-based Security Model (USM) for version 3 of<br>the Simple Network Management Protocol (SNMPv3) | 3414  | 62 |
| VACM-SNMP  | View-based Access Control Model (VACM) for the<br>Simple Network Management Protocol (SNMP)         | 3415  | 62 |
| OPS-MIB    | Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)              | 3416  | 62 |
| TRANS-MIB  | Transport Mappings for the Simple Network Management Protocol (SNMP)                                | 3417  | 62 |
| SNMPv2-MIB | Management Information Base (MIB) for the Simple<br>Network Management Protocol (SNMP)              | 3418  | 62 |
| UTF-8      | UTF-8, a transformation format of ISO 10646   | 3629  | 63 |
| RTP        | RTP: A Transport Protocol for Real-Time Applications  | 3550  | 64 |
| RTP-AV     | RTP Profile for Audio and Video Conferences with Minimal Control                                    | 3551  | 65 |
|            | Uniform Resource Identifier (URI): Generic Syntax   | 3986* | 66 |

| XDR  | XDR: External Data Representation Standard    | 4506* | 67 |
|------|---|-------|----|
| ABNF | Augmented BNF for Syntax Specifications: ABNF | 5234* | 68 |

## 3.2. Standard Protocols Ordered by RFC

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic   | Title   | STD‡ | # RFC# |
|------------|---|------|--------|
| ABNF       | Augmented BNF for Syntax Specifications: ABNF   | 68   | 5234*  |
|            | Internet Official Protocol Standards  | 1    | 5000*  |
| XDR        | XDR: External Data Representation Standard  | 67   | 4506*  |
|            | Uniform Resource Identifier (URI): Generic Syntax   | 66   | 3986*  |
| UTF-8      | UTF-8, a transformation format of ISO 10646   | 63   | 3629   |
| RTP-AV     | RTP Profile for Audio and Video Conferences with Minimal Control                                    | 65   | 3551   |
| RTP        | RTP: A Transport Protocol for Real-Time Applications  | 64   | 3550   |
| SNMPv2-MIB | Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)                 | 62   | 3418   |
| TRANS-MIB  | Transport Mappings for the Simple Network Management Protocol (SNMP)                                | 62   | 3417   |
| OPS-MIB    | Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)              | 62   | 3416   |
| VACM-SNMP  | View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)            | 62   | 3415   |
| USM-SNMPV3 | User-based Security Model (USM) for version 3 of<br>the Simple Network Management Protocol (SNMPv3) | 62   | 3414   |
| SNMP-APP   | Simple Network Management Protocol (SNMP) Applications  | 62   | 3413   |
| MPD-SNMP   | Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)                | 62   | 3412   |
| ARCH-SNMP  | An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks      | 62   | 3411   |
| SMTP-Pipe  | SMTP Service Extension for Command Pipelining   | 60   | 2920   |
| RMON-MIB   | Remote Network Monitoring Management Information Base   | 59   | 2819   |
| CONF-MIB   | Conformance Statements for SMIv2  | 58   | 2580   |
| CONV-MIB   | Textual Conventions for SMIv2   | 58   | 2579   |
| SMIv2      | Structure of Management Information Version 2 (SMIv2)   | 58   | 2578   |
| RIP2       | RIP Version 2   |      | 2453   |
| IP-FR      | Multiprotocol Interconnect over Frame Relay   |      | 2427   |
| OSPF2      | OSPF Version 2  |      | 2328   |
| ONE-PASS   | A One-Time Password System  |      | 2289   |
| POP3       | Post Office Protocol - Version 3  | 53   | 1939   |

| RFC 5000                    | Internet Official Protocol Standards  | Mag | y 2008               |
|-----------------------------|---|-----|----------------------|
| SMTP-SIZE                   | SMTP Service Extension for Message Size Declaration   | 10  | 1870                 |
| RIP2-APP<br>PPP-HDLC<br>PPP | RIP Version 2 Protocol Applicability Statement PPP in HDLC-like Framing The Point-to-Point Protocol (PPP)     | 51  | 1722<br>1662<br>1661 |
| IP-FDDI<br>TFTP             | Transmission of IP and ARP over FDDI Networks The TFTP Protocol (Revision 2)                                  | 33  | 1390<br>1350<br>1213 |
| MIB-II                      | Management Information Base for Network  Management of TCP/IP-based internets:MIB-II  Concise MIB definitions |     | 1213                 |
| IP-SMDS                     | The Transmission of IP Datagrams over the SMDS Service  |     | 1209                 |
| IP-ARC<br>SMI               | Transmitting IP traffic over ARCNET networks Structure and identification of management                       |     | 1201<br>1155         |
| IP-IPX                      | information for TCP/IP-based internets Standard for the transmission of 802.2 packets over IPX networks       | 49  | 1132                 |
|                             | Requirements for Internet Hosts - Application and Support   | 3   | 1123                 |
|                             | Requirements for Internet Hosts - Communication Layers  | 3   | 1122                 |
| IGMP                        | Host extensions for IP multicasting   | _   | 1112                 |
|                             | Standard for the transmission of IP datagrams over NetBIOS networks   |     | 1088                 |
| IP-SLIP                     | Nonstandard for transmission of IP datagrams over serial lines: SLIP  |     | 1055                 |
| IP-HC                       | Internet Protocol on Network System's HYPERchannel: Protocol Specification                                    |     | 1044                 |
| IP-IEEE                     | Standard for the transmission of IP datagrams over IEEE 802 networks  |     | 1042                 |
| DOMAIN                      | Domain names - implementation and specification   |     | 1035                 |
| DOMAIN                      | Domain names - concepts and facilities  |     | 1034                 |
| TP-TCP                      | ISO Transport Service on top of the TCP Version:  |     | 1006                 |
| NETBIOS                     | Protocol standard for a NetBIOS service on a TCP/UDP transport: Detailed specifications                       |     | 1002                 |
| NETBIOS                     | Protocol standard for a NetBIOS service on a TCP/UDP transport: Concepts and methods                          | 19  | 1001                 |
| FTP                         | File Transfer Protocol  | 9   | 959                  |
|                             | Internet Standard Subnetting Procedure  | 5   |                      |
|                             | Broadcasting Internet datagrams in the presence of subnets  | 5   | 922                  |
|                             | Broadcasting Internet Datagrams   | 5   | 919                  |
| IP-WB                       | Host Access Protocol specification  | 40  |                      |
| RARP                        | A Reverse Address Resolution Protocol   | 38  |                      |
| IP-EE                       | Standard for the transmission of IP datagrams   | 42  | 895                  |
|                             | over experimental Ethernet networks   |     |                      |

| Internet Official Protocol Standards                                   | May   | 2008   |
|--|---|--|
|  |   |  |
| A Standard for the Transmission of IP Datagrams over Ethernet Networks | 41  | 894  |
| DCN Local-Network Protocols  | 44  | 891  |
| Time Protocol  | 26  | 868  |
| Daytime Protocol   | 25  | 867  |
| Active users   | 24  | 866  |
| Quote of the Day Protocol  | 23  | 865  |
| Character Generator Protocol   | 22  | 864  |
| Discard Protocol   | 21  | 863  |
| Echo Protocol  | 20  | 862  |
| Telnet Status Option   | 30  | 859  |
| Telnet Protocol Specification  | 8   | 854  |
| Ethernet Address Resolution Protocol: Or                               | 37  | 826  |
| Converting Network Protocol Addresses to 48.bit                        |   |  |
| Ethernet Address for Transmission on Ethernet                          |   |  |
| Hardware   |   |  |
| Transmission Control Protocol  | 7   | 793  |
| Internet Control Message Protocol                                      | 5   | 792  |
| Internet Protocol  | 5   | 791  |
| User Datagram Protocol   | 6   | 768  |
|  | A Standard for the Transmission of IP Datagrams over Ethernet Networks DCN Local-Network Protocols Time Protocol Daytime Protocol Active users Quote of the Day Protocol Character Generator Protocol Discard Protocol Echo Protocol Telnet Status Option Telnet Protocol Specification Ethernet Address Resolution Protocol: Or Converting Network Protocol Addresses to 48.bit Ethernet Address for Transmission on Ethernet Hardware Transmission Control Protocol Internet Control Message Protocol Internet Protocol | A Standard for the Transmission of IP Datagrams over Ethernet Networks  DCN Local-Network Protocols  Time Protocol  Daytime Protocol  Active users  Quote of the Day Protocol  Character Generator Protocol  Echo Protocol  Telnet Status Option  Telnet Protocol Specification  Ethernet Address Resolution Protocol: Or  Converting Network Protocol Addresses to 48.bit  Ethernet Address for Transmission on Ethernet  Hardware  Transmission Control Protocol  Internet Control Message Protocol  Internet Protocol  Salary  44  44  44  44  44  44  44  44  44 |

### 3.3. Draft Standard Protocols

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic  | Title   | RFC#  |
|-----------|---|-------|
| IPv6-PPP  | IP Version 6 over PPP   | 5072* |
|           | Autonomous System Confederations for BGP                              | 5065* |
|           | LDP Specification   | 5036* |
|           | Privacy Extensions for Stateless Address Autoconfiguration in IPv6    | 4941* |
|           | Extensible Provisioning Protocol (EPP) Transport Over TCP             | 4934* |
|           | Extensible Provisioning Protocol (EPP) Contact Mapping                | 4933* |
|           | Extensible Provisioning Protocol (EPP) Host Mapping                   | 4932* |
|           | Extensible Provisioning Protocol (EPP) Domain Name Mapping            | 4931* |
|           | Extensible Provisioning Protocol (EPP)                                | 4930* |
| IPV6-AUTO | IPv6 Stateless Address Autoconfiguration                              | 4862* |
| IPV6-ND   | Neighbor Discovery for IP version 6 (IPv6)                            | 4861* |
| MEXT-BGP4 | Multiprotocol Extensions for BGP-4                                    | 4760* |
| RMON-MIB  | Remote Network Monitoring Management Information Base Version 2       | 4502* |
| BGP-RR    | BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP) | 4456* |

RFC Editor Informational [Page 8]

|             | Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification | 4443*    |
|-------------|---|----------|
|             | Message Submission for Mail   | 4409*    |
|             | IP Version 6 Addressing Architecture  | 4291*    |
| BGP-4       | A Border Gateway Protocol 4 (BGP-4)   | 4271*    |
| SMFAX-IM    | A Simple Mode of Facsimile Using Internet Mail  | 3965*    |
| FFIF        | Tag Image File Format Fax eXtended (TIFF-FX) -  | 3950*    |
| 1111        | image/tiff-fx MIME Sub-type Registration  | 3730     |
| FFIF        | File Format for Internet Fax  | 3949*    |
| NICNAME     | WHOIS Protocol Specification  | 3912*    |
| CONT-DUR    | Content Duration MIME Header Definition   | 3803     |
|             |   |          |
| MIME-ADPCM  | Toll Quality Voice - 32 kbit/s Adaptive Differential  | 3802     |
|             | Pulse Code Modulation (ADPCM) MIME Sub-type   |          |
| MTME 1100   | Registration  | 2001     |
| MIME-VP2    | Voice Profile for Internet Mail - version 2 (VPIMv2)  | 3801     |
| EMF-MDN     | Message Disposition Notification  | 3798     |
| VRRP        | Virtual Router Redundancy Protocol (VRRP)   | 3768     |
|             | DNS Extensions to Support IP Version 6  | 3596     |
|             | Textual Conventions for MIB Modules Using   | 3593     |
|             | Performance History Based on 15 Minute Intervals  |          |
|             | Definitions of Managed Objects for the Synchronous  | 3592     |
|             | Optical Network/Synchronous Digital Hierarchy   |          |
|             | (SONET/SDH) Interface Type  |          |
| DSN         | An Extensible Message Format for Delivery Status  | 3464     |
|             | Notifications   |          |
| EMS-CODE    | Enhanced Mail System Status Codes   | 3463     |
| MIME-RPT    | The Multipart/Report Content Type for the Reporting   | 3462     |
|             | of Mail System Administrative Messages  |          |
| SMTP-DSN    | Simple Mail Transfer Protocol (SMTP) Service  | 3461     |
|             | Extension for Delivery Status Notifications (DSNs)  |          |
|             | Capabilities Advertisement with BGP-4   | 3392     |
| TIFF        | Tag Image File Format (TIFF) - image/tiff MIME  | 3302     |
|             | Sub-type Registration   |          |
|             | Content Language Headers  | 3282     |
|             | (Extensible Markup Language) XML-Signature Syntax   | 3275     |
|             | and Processing  |          |
| MINFAX-IM   | Minimal FAX address format in Internet Mail   | 3192     |
| MIN-PSTN    | Minimal GSTN address format in Internet Mail  | 3191     |
| RMON-MIB    | Remote Network Monitoring MIB Protocol Identifier   | 2895     |
| 101011 1111 | Reference   | 2073     |
| RADIUS      | Remote Authentication Dial In User Service (RADIUS)   | 2865     |
|             | The Interfaces Group MIB  | 2863     |
| INTERCORMED | Host Resources MIB  | 2790     |
| SNMP        | Definitions of Managed Objects for Extensible SNMP  | 2742     |
| PINITE      | Agents  | 4/14     |
|             | Agent Extensibility (AgentX) Protocol Version 1   | 2741     |
|             | HTTP Authentication: Basic and Digest Access  | 2617     |
| <b></b>     | Authentication Basic and Digest Access  | Z () I / |
|             | Authoritation   |          |

| HTTP                                    | Hypertext Transfer Protocol HTTP/1.1<br>Remote Network Monitoring MIB Extensions for      | 2616<br>2613 |
|---|---|--------------|
|   | Switched Networks Version 1.0   | 0.460        |
| IPV6                                    | Internet Protocol, Version 6 (IPv6) Specification   | 2460         |
| IARP                                    | Inverse Address Resolution Protocol   | 2390         |
| TN3270E                                 | TN3270 Enhancements   | 2355         |
| TFTP-Opt                                | TFTP Timeout Interval and Transfer Size Options   | 2349         |
| TFTP-Blk                                | TFTP Blocksize Option   | 2348         |
| TFTP-Ext                                | TFTP Option Extension   | 2347         |
|   | DHCP Options and BOOTP Vendor Extensions  | 2132         |
| DHCP                                    | Dynamic Host Configuration Protocol   | 2131         |
| FRAME-MIB                               | Management Information Base for Frame Relay DTEs Using SMIv2                              | 2115         |
| IP-HIPPI                                | IP over HIPPI   | 2067         |
| MIME-CONF                               | Multipurpose Internet Mail Extensions (MIME) Part Five: Conformance Criteria and Examples | 2049         |
| MIME-MSG                                | MIME (Multipurpose Internet Mail Extensions) Part   | 2047         |
| 111111111111111111111111111111111111111 | Three: Message Header Extensions for Non-ASCII Text                                       | 2017         |
| MIME-MEDIA                              | Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types                        | 2046         |
| MIME                                    | Multipurpose Internet Mail Extensions (MIME) Part   | 2045         |
|   | One: Format of Internet Message Bodies  |              |
| PPP-CHAP                                | PPP Challenge Handshake Authentication Protocol (CHAP)                                    | 1994         |
| PPP-MP                                  | The PPP Multilink Protocol (MP)   | 1990         |
| PPP-LINK                                | PPP Link Quality Monitoring   | 1989         |
| MTU-IPV6                                | Path MTU Discovery for IP version 6   | 1981         |
| CON-MD5                                 | The Content-MD5 Header Field  | 1864         |
| BGP-4-APP                               | Application of the Border Gateway Protocol in the Internet                                | 1772         |
| PPP-DNCP                                | The PPP DECnet Phase IV Control Protocol (DNCP)   | 1762         |
| 802.5-MIB                               | IEEE 802.5 MIB using SMIv2  | 1748         |
| RIP2-MIB                                | RIP Version 2 MIB Extension   | 1724         |
| SIP-MIB                                 | Definitions of Managed Objects for SMDS Interfaces  | 1694         |
| DII MID                                 | using SMIv2   | 1001         |
|   | Definitions of Managed Objects for  | 1660         |
|   | Parallel-printer-like Hardware Devices using SMIv2  | 1000         |
|   | Definitions of Managed Objects for RS-232-like  | 1659         |
|   | Hardware Devices using SMIv2  | 1000         |
|   | Definitions of Managed Objects for Character Stream                                       | 1658         |
|   | Devices using SMIv2   | 1000         |
|   | SMTP Service Extension for 8bit-MIMEtransport   | 1652         |
| OSI-NSAP                                | Guidelines for OSI NSAP Allocation in the Internet  | 1629         |
|   | An Echo Function for CLNP (ISO 8473)  | 1575         |
|   | DECnet Phase IV MIB Extensions  | 1559         |
|   | Clarifications and Extensions for the Bootstrap   | 1542         |
|   | Protocol  |              |
| DHCP-BOOTP                              | Interoperation Between DHCP and BOOTP   | 1534         |

| IP-X.25   | Multiprotocol Interconnect on X.25 and ISDN in the Packet Mode               | 1356 |
|-----------|--|------|
| NTPV3     | Network Time Protocol (Version 3) Specification, Implementation and Analysis | 1305 |
| FINGER    | The Finger User Information Protocol   | 1288 |
| IP-MTU    | Path MTU discovery   | 1191 |
|           | Proposed Standard for the Transmission of IP Datagrams over FDDI Networks    | 1188 |
| TOPT-LINE | Telnet Linemode Option   | 1184 |
| BOOTP     | Bootstrap Protocol   | 951  |

# 3.4. Proposed Standard Protocols

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic | Title   | RFC#  |
|----------|---|-------|
|          | Sieve Email Filtering: Spamtest and Virustest Extensions                                    | 5235* |
|          | Sieve Email Filtering: Subaddress Extension   | 5233* |
|          | Sieve Email Filtering: Imap4flags Extension   | 5232* |
|          | Sieve Email Filtering: Relational Extension   | 5231* |
|          | Sieve Email Filtering: Vacation Extension   | 5230* |
|          | Sieve Email Filtering: Variables Extension  | 5229* |
|          | Sieve: An Email Filtering Language  | 5228* |
|          | A More Loss-Tolerant RTP Payload Format for MP3 Audio                                       | 5219* |
|          | Mobility Header Home Agent Switch Message   | 5142* |
|          | Terminal Endpoint Identifier (TEI) Query Request  | 5133* |
|          | Number Change   |       |
|          | IP Multicast MIB  | 5132* |
|          | A MIB Textual Convention for Language Tags  | 5131* |
|          | A Policy Control Mechanism in IS-IS Using   | 5130* |
|          | Administrative Tags   |       |
|          | Explicit Congestion Marking in MPLS   | 5129* |
|          | Transmission of IPv6 via the IPv6 Convergence<br>Sublayer over IEEE 802.16 Networks         | 5121* |
|          | M-ISIS: Multi Topology (MT) Routing in Intermediate System to Intermediate Systems (IS-ISs) | 5120* |
|          | An Interface and Algorithms for Authenticated<br>Encryption                                 | 5116* |
|          | Telephony Routing over IP (TRIP) Attribute for Resource Priority                            | 5115* |
|          | The Presence-Specific Static Dictionary for Signaling Compression (Sigcomp)                 | 5112* |
|          | RTP Payload Format for Generic Forward Error Correction                                     | 5109* |
|          | DHCP Server Identifier Override Suboption   | 5107* |

|          | ENUM Validation Token Format Definition  | 5105*          |
|----------|--|----------------|
|          | Bidirectional Flow Export Using IP Flow Information  | 5103*          |
|          | Export (IPFIX)   |                |
|          | Information Model for IP Flow Information Export   | 5102*          |
|          | Specification of the IP Flow Information Export  | 5101*          |
|          | (IPFIX) Protocol for the Exchange of IP Traffic Flow   |                |
|          | Information  |                |
|          | MIB for the UDP-Lite protocol  | 5097*          |
|          | Mobile IPv6 Experimental Messages  | 5096*          |
|          | Deprecation of Type O Routing Headers in IPv6  | 5095*          |
|          | Mobile IPv6 Vendor Specific Option   | 5094*          |
| IMAP-URL | IMAP URL Scheme  | 5092*          |
|          | RADIUS Extension for Digest Authentication   | 5090*          |
|          | IS-IS Protocol Extensions for Path Computation   | 5089*          |
|          | Element (PCE) Discovery  |                |
|          | OSPF Protocol Extensions for Path Computation  | 5088*          |
|          | Element (PCE) Discovery  |                |
|          | Pseudowire Virtual Circuit Connectivity Verification   | 5085*          |
|          | (VCCV): A Control Channel for Pseudowires  |                |
|          | Using AES-CCM and AES-GCM Authenticated Encryption   | 5084*          |
|          | in the Cryptographic Message Syntax (CMS)  |                |
|          | Cryptographic Message Syntax (CMS)   | 5083*          |
|          | Authenticated-Enveloped-Data Content Type  |                |
|          | The Generalized TTL Security Mechanism (GTSM)  | 5082*          |
|          | Common Remote Authentication Dial In User Service  | 5080*          |
|          | (RADIUS) Implementation Issues and Suggested Fixes   |                |
|          | Rejecting Anonymous Requests in the Session  | 5079*          |
|          | Initiation Protocol (SIP)  | E 0 E E . I    |
|          | Transport Layer Security (TLS) Session Resumption  | 5077*          |
|          | without Server-Side State  | F076*          |
|          | ENUM Validation Information Mapping for the  | 5076*          |
|          | Extensible Provisioning Protocol   | L              |
|          | IPv6 Router Advertisement Flags Option   | 5075*          |
|          | IGP Routing Protocol Extensions for Discovery of   | 5073*          |
|          | Traffic Engineering Node Capabilities The Ingident Object Description Evabores Format                | E070*          |
|          | The Incident Object Description Exchange Format Ethernet in the First Mile Copper (EFMCu) Interfaces | 5070*<br>5066* |
|          | MTB  | 3000           |
|          | The Archived-At Message Header Field   | 5064*          |
|          | Extensions to GMPLS Resource Reservation Protocol  | 5063*          |
|          | (RSVP) Graceful Restart  | 3003           |
|          | Stream Control Transmission Protocol (SCTP) Dynamic  | 5061*          |
|          | Address Reconfiguration  | 3001           |
|          | Protocol Independent Multicast MIB   | 5060*          |
|          | Bootstrap Router (BSR) Mechanism for Protocol  | 5059*          |
|          | Independent Multicast (PIM)  | 3037           |
|          | On the Use of Channel Bindings to Secure Channels  | 5056*          |
|          | Server-Based Certificate Validation Protocol (SCVP)  | 5055*          |
|          |  |                |

|           | Raptor Forward Error Correction Scheme for Object Delivery   | 5053* |
|-----------|--|-------|
|           | Forward Error Correction (FEC) Building Block  | 5052* |
|           | i;unicode-casemap - Simple Unicode Collation<br>Algorithm  | 5051* |
|           | Applying Signaling Compression (SigComp) to the Session Initiation Protocol (SIP)                  | 5049* |
|           | Internet Small Computer System Interface (iSCSI) Corrections and Clarifications                    | 5048* |
|           | Internet Small Computer System Interface (iSCSI) Extensions for Remote Direct Memory Access (RDMA) | 5046* |
|           | Marker PDU Aligned Framing for TCP Specification   | 5044* |
|           | Stream Control Transmission Protocol (SCTP) Direct Data Placement (DDP) Adaptation                 | 5043* |
|           | Direct Data Placement Protocol (DDP) / Remote Direct<br>Memory Access Protocol (RDMAP) Security    | 5042* |
|           | Direct Data Placement over Reliable Transports   | 5041* |
|           | A Remote Direct Memory Access Protocol Specification   | 5040* |
|           | Enhanced Security Services (ESS) Update: Adding CertID Algorithm Agility                           | 5035* |
| POP3-AUTH | The Post Office Protocol (POP3) Simple   | 5034* |
|           | Authentication and Security Layer (SASL) Authentication Mechanism                                  |       |
|           | WITHIN Search Extension to the IMAP Protocol   | 5032* |
|           | A Uniform Resource Name (URN) for Emergency and Other Well-Known Services                          | 5031* |
|           | Definition of an IS-IS Link Attribute Sub-TLV  | 5029* |
|           | A Telephone Number Mapping (ENUM) Service<br>Registration for Instant Messaging (IM) Services      | 5028* |
|           | Security Preconditions for Session Description Protocol (SDP) Media Streams                        | 5027* |
|           | Mobile IPv6 Bootstrapping in Split Scenario  | 5026* |
|           | Presence Authorization Rules   | 5025* |
|           | The Atom Publishing Protocol   | 5023* |
|           | Extended Kerberos Version 5 Key Distribution Center (KDC) Exchanges over TCP                       | 5021* |
|           | The Lightweight Directory Access Protocol (LDAP) entryDN Operational Attribute                     | 5020* |
|           | The Lightweight Online Certificate Status Protocol (OCSP) Profile for High-Volume Environments     | 5019* |
|           | Connection Establishment in the Binary Floor Control Protocol (BFCP)                               | 5018* |
|           | MIB Textual Conventions for Uniform Resource Identifiers (URIs)                                    | 5017* |
|           | Bidirectional Protocol Independent Multicast (BIDIR-PIM)   | 5015* |
|           | Automated Updates of DNS Security (DNSSEC) Trust<br>Anchors  | 5011* |

| <br>The Dynamic Host Configuration Protocol Version 4 (DHCPv4) Relay Agent Flags Suboption                                      | 5010* |
|---|-------|
| <br>DHCPv6 Leasequery   | 5007* |
| <br>Feed Paging and Archiving   | 5005* |
| <br>Avoid BGP Best Path Transitions from One External to Another  | 5004* |
| <br>Attachment Individual Identifier (AII) Types for Aggregation  | 5003* |
| <br>DNS Name Server Identifier (NSID) Option  | 5001* |
| <br>Evidence Record Syntax (ERS)  | 4998* |
| <br>Formal Notation for RObust Header Compression (ROHC-FN)   | 4997* |
| <br>RObust Header Compression (ROHC): A Profile for TCP/IP (ROHC-TCP)   | 4996* |
| <br>The RObust Header Compression (ROHC) Framework  | 4995* |
| <br>DHCPv6 Relay Agent Echo Request Option  | 4994* |
| <br>A Lightweight UDP Transfer Protocol for the Internet<br>Registry Information Service  | 4993* |
| <br>XML Pipelining with Chunks for the Internet Registry Information Service  | 4992* |
| <br>A Common Schema for Internet Registry Information<br>Service Transfer Protocols   | 4991* |
| <br>Internet X.509 Public Key Infrastructure Subject Alternative Name for Expression of Service Name                            | 4985* |
| <br>Fibre Channel Registered State Change Notification (RSCN) MIB   | 4983* |
| <br>Support for Multiple Hash Algorithms in Cryptographically Generated Addresses (CGAs)  | 4982* |
| <br>IANA Registration for Enumservice 'XMPP'  | 4979* |
| <br>The IMAP COMPRESS Extension   | 4978* |
| <br>Relay Extensions for the Message Sessions Relay Protocol (MSRP)   | 4976* |
| <br>The Message Session Relay Protocol (MSRP)   | 4975* |
| <br>Generalized MPLS (GMPLS) RSVP-TE Signaling Extensions in Support of Calls   | 4974* |
| <br>Routing Extensions for Discovery of Multiprotocol (MPLS) Label Switch Router (LSR) Traffic Engineering (TE) Mesh Membership | 4972* |
| <br>Intermediate System to Intermediate System (IS-IS) Extensions for Advertising Router Information                            | 4971* |
| <br>Extensions to OSPF for Advertising Optional Router Capabilities   | 4970* |
| <br>IANA Registration for vCard Enumservice   | 4969* |
| <br>Dial String Parameter for the Session Initiation  | 4967* |
| Protocol Uniform Resource Identifier  |       |
| <br>Stream Control Transmission Protocol  | 4960* |
| <br>IMAP Extension for Simple Authentication and  | 4959* |
| Security Layer (SASL) Initial Client Response   |       |

|        | DNS Security (DNSSEC) Experiments                    | 4955* |
|--------|--|-------|
|        | SMTP Service Extension for Authentication            | 4954* |
|        |  |       |
|        | Fail Over Extensions for Layer 2 Tunneling Protocol  | 4951* |
|        | (L2TP) "failover"                                    |       |
|        | ICMP Extensions for Multiprotocol Label Switching    | 4950* |
|        | The Internet IP Security PKI Profile of              | 4945* |
|        | IKEv1/ISAKMP, IKEv2, and PKIX                        |       |
|        | Transmission of IPv6 Packets over IEEE 802.15.4      | 4944* |
|        | Networks   |       |
|        |  | 4939* |
|        | Definitions of Managed Objects for iSNS (Internet    | 4939" |
|        | Storage Name Service)                                |       |
|        | Fibre Channel Zone Server MIB                        | 4936* |
|        | Fibre Channel Fabric Configuration Server MIB        | 4935* |
|        | Crankback Signaling Extensions for MPLS and GMPLS    | 4920* |
|        | RSVP-TE  |       |
| WEBDAV | HTTP Extensions for Web Distributed Authoring and    | 4918* |
| WEDDAV |  | 4710  |
|        | Versioning (WebDAV)                                  | 4045. |
|        | Mobile IPv4 Message String Extension                 | 4917* |
|        | Connected Identity in the Session Initiation         | 4916* |
|        | Protocol (SIP)                                       |       |
|        | Multi-Topology (MT) Routing in OSPF                  | 4915* |
|        | Representing Trunk Groups in tel/sip Uniform         | 4904* |
|        | Resource Identifiers (URIs)                          | 1001  |
|        |  | 4001+ |
|        | Protocol Extensions for Header Compression over MPLS | 4901* |
|        | TCP Extended Statistics MIB                          | 4898* |
|        | Signaling Compression (SigComp) Corrections and      | 4896* |
|        | Clarifications                                       |       |
|        | Authenticated Chunks for the Stream Control          | 4895* |
|        | Transmission Protocol (SCTP)                         |       |
|        | BGP Support for Four-octet AS Number Space           | 4893* |
|        |  |       |
|        | Extended ICMP to Support Multi-Part Messages         | 4884* |
|        | OpenPGP Message Format                               | 4880* |
|        | Definitions and Managed Objects for Operations,      | 4878* |
|        | Administration, and Maintenance (OAM) Functions on   |       |
|        | Ethernet-Like Interfaces                             |       |
|        | Mobile IPv6 Operation with IKEv2 and the Revised     | 4877* |
|        | IPsec Architecture                                   | 20.,  |
|        | Extensions to Resource Reservation Protocol -        | 4875* |
|        |  | 40/5" |
|        | Traffic Engineering (RSVP-TE) for                    |       |
|        | Point-to-Multipoint TE Label Switched Paths (LSPs)   |       |
|        | Exclude Routes - Extension to Resource ReserVation   | 4874* |
|        | Protocol-Traffic Engineering (RSVP-TE)               |       |
|        | GMPLS Segment Recovery                               | 4873* |
|        | RSVP-TE Extensions in Support of End-to-End          | 4872* |
|        | Generalized Multi-Protocol Label Switching (GMPLS)   | -5,2  |
|        |  |       |
|        | Recovery   | 4001  |
|        | DomainKeys Identified Mail (DKIM) Signatures         | 4871* |
|        |  |       |

|          | Using HMAC-SHA-256, HMAC-SHA-384, and HMAC-SHA-512 with IPsec   | 4868* |
|----------|---|-------|
|          | RTP Payload Format and File Storage Format for the Adaptive Multi-Rate (AMR) and Adaptive Multi-Rate Wideband (AMR-WB) Audio Codecs | 4867* |
|          | Enhanced Route Optimization for Mobile IPv6   | 4866* |
|          | SMTP Submission Service Extension for Future Message Release  | 4865* |
|          | Wildcard Pseudowire Type  | 4863* |
|          | Generic Aggregate Resource ReSerVation Protocol (RSVP) Reservations   | 4860* |
|          | Media Type Registration of Payload Formats in the RTP Profile for Audio and Video Conferences                                       | 4856* |
|          | Media Type Registration of RTP Payload Formats  | 4855* |
|          | Cryptographic Message Syntax (CMS) Multiple Signer Clarification  | 4853* |
|          | Declarative Public Extension Key for Internet Small<br>Computer Systems Interface (iSCSI) Node Architecture                         | 4850* |
|          | RADIUS Filter Rule Attribute  | 4849* |
|          | Domain-Based Application Service Location Using URIs  | 4848* |
|          | and the Dynamic Delegation Discovery Service (DDDS)   |       |
|          | Synchronous Optical Network/Synchronous Digital Hierarchy (SONET/SDH) Circuit Emulation over Packet (CEP)                           | 4842* |
|          | Managed Objects of Ethernet Passive Optical Networks (EPON)   | 4837* |
| MAU-MIB  | Definitions of Managed Objects for IEEE 802.3 Medium Attachment Units (MAUs)  | 4836* |
| ESP      | Cryptographic Algorithm Implementation Requirements<br>for Encapsulating Security Payload (ESP) and<br>Authentication Header (AH)   | 4835* |
|          | Timezone Options for DHCP   | 4833* |
|          | An Extensible Markup Language (XML) Configuration<br>Access Protocol (XCAP) Usage for Manipulating<br>Presence Document Contents    | 4827* |
|          | Extensible Markup Language (XML) Formats for Representing Resource Lists  | 4826* |
|          | The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)   | 4825* |
| RIP2-MD5 | RIPv2 Cryptographic Authentication  | 4822* |
|          | Packetization Layer Path MTU Discovery  | 4821* |
|          | Padding Chunk and Parameter for the Stream Control Transmission Protocol (SCTP)   | 4820* |
|          | Secure Shell Public Key Subsystem   | 4819* |
|          | RADIUS Delegated-IPv6-Prefix Attribute  | 4818* |
|          | Encapsulation of MPLS over Layer 2 Tunneling  | 4817* |
|          | Protocol Version 3  |       |

| <br>Pseudowire Emulation Edge-to-Edge (PWE3) Asynchronous Transfer Mode (ATM) Transparent Cell Transport Service   | 4816* |
|--|-------|
| <br>RObust Header Compression (ROHC): Corrections and Clarifications to RFC 3095                                   | 4815* |
| <br>IPsec Security Policy Database Configuration MIB   | 4807* |
| <br>Online Certificate Status Protocol (OCSP) Extensions to IKEv2  | 4806* |
| <br>Definitions of Managed Objects for the DS1, J1, E1, DS2, and E2 Interface Types                                | 4805* |
| <br>Aggregation of Resource ReSerVation Protocol (RSVP) Reservations over MPLS TE/DS-TE Tunnels                    | 4804* |
| <br>Generalized Multiprotocol Label Switching (GMPLS) Label Switching Router (LSR) Management Information Base     | 4803* |
| <br>Generalized Multiprotocol Label Switching (GMPLS) Traffic Engineering Management Information Base              | 4802* |
| <br>Definitions of Textual Conventions for Generalized Multiprotocol Label Switching (GMPLS) Management            | 4801* |
| <br>Connecting IPv6 Islands over IPv4 MPLS Using IPv6 Provider Edge Routers (6PE)                                  | 4798* |
| <br>The Session Description Protocol (SDP) Content<br>Attribute  | 4796* |
| <br>Encoding Instructions for the Generic String Encoding Rules (GSER)   | 4792* |
| <br>Calendaring Extensions to WebDAV (CalDAV)  | 4791* |
| <br>Internet Application Protocol Collation Registry   | 4790* |
| <br>Simple Network Management Protocol (SNMP) over IEEE 802 Networks   | 4789* |
| <br>Enhancements to RTP Payload Formats for EVRC Family Codecs   | 4788* |
| <br>Pre-Shared Key (PSK) Ciphersuites with NULL<br>Encryption for Transport Layer Security (TLS)                   | 4785* |
| <br>GMPLS - Communication of Alarm Information   | 4783* |
| <br>Graceful Restart Mechanism for BGP with MPLS   | 4781* |
| <br>Management Information Base for the Session Initiation Protocol (SIP)  | 4780* |
| <br>Dynamic Host Configuration Protocol (DHCPv4 and DHCPv6) Option for Civic Addresses Configuration Information   | 4776* |
| <br>Integrity Transform Carrying Roll-Over Counter for the Secure Real-time Transport Protocol (SRTP)              | 4771* |
| <br>vCard Extensions for Instant Messaging (IM)  | 4770* |
| <br>IANA Registration for an Enumservice Containing Public Switched Telephone Network (PSTN) Signaling Information | 4769* |
| <br>Virtual Private LAN Service (VPLS) Using Label Distribution Protocol (LDP) Signaling                           | 4762* |

|          | Virtual Private LAN Service (VPLS) Using BGP for Auto-Discovery and Signaling  | 4761* |
|----------|--|-------|
|          | The ENUM Dip Indicator Parameter for the "tel" URI                             | 4759* |
|          | Forward Error Correction Grouping Semantics in<br>Session Description Protocol | 4756* |
|          | IP over InfiniBand: Connected Mode   | 4755* |
|          | IKE and IKEv2 Authentication Using the Elliptic                                | 4754* |
|          | Curve Digital Signature Algorithm (ECDSA)                                      |       |
| SASL     | The Kerberos V5 ("GSSAPI") Simple Authentication and                           | 4752* |
| DADL     | Security Layer (SASL) Mechanism  | 4/32  |
| OSPF-MIB | OSPF Version 2 Management Information Base                                     | 4750* |
| OSPF-MID |  |       |
|          | RTP Payload Format for the G.729.1 Audio Codec                                 | 4749* |
|          | The Virtual Fabrics MIB  | 4747* |
|          | Common Policy: A Document Format for Expressing                                | 4745* |
|          | Privacy Preferences  |       |
|          | Using the NETCONF Protocol over the Blocks                                     | 4744* |
|          | Extensible Exchange Protocol (BEEP)  |       |
|          | Using NETCONF over the Simple Object Access Protocol (SOAP)                    | 4743* |
|          | Using the NETCONF Configuration Protocol over Secure SHell (SSH)               | 4742* |
|          | NETCONF Configuration Protocol   | 4741* |
|          | Diameter Session Initiation Protocol (SIP)                                     | 4740* |
|          | Application  | 4740  |
|          |  | 4738* |
|          | MIKEY-RSA-R: An Additional Mode of Key Distribution                            | 4/30" |
|          | in Multimedia Internet KEYing (MIKEY)  | 40004 |
|          | Packet Reordering Metrics  | 4737* |
|          | Example Media Types for Use in Documentation                                   | 4735* |
|          | Definition of Events for Modem, Fax, and Text                                  | 4734* |
|          | Telephony Signals  |       |
|          | RTP Payload for DTMF Digits, Telephony Tones, and                              | 4733* |
|          | Telephony Signals  |       |
|          | IMAP4 Extension to SEARCH Command for Controlling                              | 4731* |
|          | What Kind of Information Is Returned   |       |
|          | A Session Initiation Protocol (SIP) Event Package                              | 4730* |
|          | for Key Press Stimulus (KPML)  |       |
|          | Experimental Values In IPv4, IPv6, ICMPv4, ICMPv6,                             | 4727* |
|          | UDP, and TCP Headers   | 1/2/  |
|          | Graceful Restart Mechanism for BGP   | 4724* |
|          |  |       |
|          | Mobile IPv4 Challenge/Response Extensions (Revised)                            | 4721* |
|          | Pseudowire Emulation Edge-to-Edge (PWE3) Frame Check                           | 4720* |
|          | Sequence Retention   |       |
|          | Transport of Ethernet Frames over Layer 2 Tunneling                            | 4719* |
|          | Protocol Version 3 (L2TPv3)  |       |
|          | Encapsulation Methods for Transport of Asynchronous                            | 4717* |
|          | Transfer Mode (ATM) over MPLS Networks   |       |
|          |  |       |

| <br>Transport Mappings for Real-time Application Quality-of-Service Monitoring (RAQMON) Protocol Data  | 4712* |
|--|-------|
| Unit (PDU)   |       |
| <br>Real-time Application Quality-of-Service Monitoring (RAQMON) MIB   | 4711* |
| <br>Real-time Application Quality-of-Service Monitoring (RAQMON) Framework   | 4710* |
| <br>Definitions of Managed Objects for Asymmetric Digital Subscriber Line 2 (ADSL2)  | 4706* |
| <br>The Dynamic Host Configuration Protocol for IPv6 (DHCPv6) Client Fully Qualified Domain Name (FQDN) Option   | 4704* |
| <br>Resolution of Fully Qualified Domain Name (FQDN) Conflicts among Dynamic Host Configuration Protocol (DHCP) Clients  | 4703* |
| <br>The Dynamic Host Configuration Protocol (DHCP) Client Fully Qualified Domain Name (FQDN) Option  | 4702* |
| <br>A DNS Resource Record (RR) for Encoding Dynamic Host<br>Configuration Protocol (DHCP) Information (DHCID RR)   | 4701* |
| <br>IRIS: An Address Registry (areg) Type for the<br>Internet Registry Information Service   | 4698* |
| <br>RTP Payload Format for MIDI  | 4695* |
| <br>Number Portability Parameters for the "tel" URI  | 4694* |
| <br>Atom Threading Extensions  | 4685* |
| <br>Constrained Route Distribution for Border Gateway Protocol/MultiProtocol Label Switching (BGP/MPLS) Internet Protocol (IP) Virtual Private Networks (VPNs) | 4684* |
| <br>Internet X.509 Public Key Infrastructure Subject Identification Method (SIM)   | 4683* |
| <br>Multimedia Terminal Adapter (MTA) Management<br>Information Base for PacketCable- and<br>IPCablecom-Compliant Devices                                      | 4682* |
| <br>TLS User Mapping Extension   | 4681* |
| <br>TLS Handshake Message for Supplemental Data  | 4680* |
| <br>RADIUS Attributes for Virtual LAN and Priority Support   | 4675* |
| <br>RADIUS Authentication Server MIB for IPv6  | 4669* |
| <br>RADIUS Authentication Client MIB for IPv6  | 4668* |
| <br>Layer 2 Virtual Private Network (L2VPN) Extensions for Layer 2 Tunneling Protocol (L2TP)   | 4667* |
| <br>Signaling System 7 (SS7) Message Transfer Part 3 (MTP3) - User Adaptation Layer (M3UA)   | 4666* |
| <br>A Session Initiation Protocol (SIP) Event<br>Notification Extension for Resource Lists   | 4662* |
| <br>An Extensible Markup Language (XML)-Based Format for<br>Event Notification Filtering   | 4661* |

| <br>Functional Description of Event Notification Filtering  | 4660* |
|---|-------|
| <br>BGP-MPLS IP Virtual Private Network (VPN) Extension for IPv6 VPN  | 4659* |
| <br>A One-way Active Measurement Protocol (OWAMP)   | 4656* |
| <br>HMAC-Authenticated Diffie-Hellman for Multimedia Internet KEYing (MIKEY)  | 4650* |
| <br>Dynamic Host Configuration Protocol for IPv6 (DHCPv6) Relay Agent Remote-ID Option  | 4649* |
| <br>The Base16, Base32, and Base64 Data Encodings   | 4648* |
| <br>Network News Transfer Protocol (NNTP) Extension for Streaming Feeds   | 4644* |
| <br>Network News Transfer Protocol (NNTP) Extension for Authentication  | 4643* |
| <br>Using Transport Layer Security (TLS) with Network News Transfer Protocol (NNTP)   | 4642* |
| <br>Cable Device Management Information Base for Data-Over-Cable Service Interface Specification (DOCSIS) Compliant Cable Modems and Cable Modem Termination Systems                        | 4639* |
| <br>Foreign Agent Error Extension for Mobile IPv4   | 4636* |
| <br>HMAC SHA (Hashed Message Authentication Code, Secure Hash Algorithm) TSIG Algorithm Identifiers   | 4635* |
| <br>Link Management Protocol (LMP) Management Information Base (MIB)  | 4631* |
| <br>Update to DirectoryString Processing in the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile  | 4630* |
| <br>RTP Payload Format for ITU-T Rec. H.263 Video   | 4629* |
| <br>MIB for Fibre Channel's Fabric Shortest Path First (FSPF) Protocol  | 4626* |
| <br>Fibre Channel Routing Information MIB   | 4625* |
| <br>Pseudowire Emulation Edge-to-Edge (PWE3) Fragmentation and Reassembly   | 4623* |
| <br>Internationalized Resource Identifiers (IRIs) and Uniform Resource Identifiers (URIs) for the Extensible Messaging and Presence Protocol (XMPP)   | 4622* |
| <br>Encapsulation Methods for Transport of Frame Relay over Multiprotocol Label Switching (MPLS) Networks   | 4619* |
| <br>Encapsulation Methods for Transport of PPP/High-Level Data Link Control (HDLC) over MPLS Networks   | 4618* |
| <br>The PLAIN Simple Authentication and Security Layer (SASL) Mechanism   | 4616* |
| <br>The Advanced Encryption Standard-Cipher-based<br>Message Authentication Code-Pseudo-Random<br>Function-128 (AES-CMAC-PRF-128) Algorithm for the<br>Internet Key Exchange Protocol (IKE) | 4615* |

|           | Anycast-RP Using Protocol Independent Multicast (PIM)   | 4610* |
|-----------|---|-------|
|           | Source-Specific Multicast for IP  | 4607* |
|           | Generalized Multi-Protocol Label Switching (GMPLS) Extensions for Synchronous Optical Network (SONET) and Synchronous Digital Hierarchy (SDH) Control | 4606* |
|           | <pre>Internet Group Management Protocol (IGMP) /    Multicast Listener Discovery (MLD)-Based Multicast    Forwarding ("IGMP/MLD Proxying")</pre>      | 4605* |
|           | Using Internet Group Management Protocol Version 3 (IGMPv3) and Multicast Listener Discovery Protocol Version 2 (MLDv2) for Source-Specific Multicast | 4604* |
| PIM-SM    | Protocol Independent Multicast - Sparse Mode (PIM-SM): Protocol Specification (Revised)   | 4601* |
|           | Real-time Transport Protocol (RTP) Payload Format for Enhanced AC-3 (E-AC-3) Audio  | 4598* |
|           | The Role of Wildcards in the Domain Name System   | 4592* |
|           | Frame Relay over Layer 2 Tunneling Protocol Version 3 (L2TPv3)  | 4591* |
|           | Location Types Registry   | 4589* |
|           | RTP Retransmission Payload Format   | 4588* |
| RTP-H.261 | RTP Payload Format for H.261 Video Streams  | 4587* |
|           | Extended RTP Profile for Real-time Transport Control Protocol (RTCP)-Based Feedback (RTP/AVPF)  | 4585* |
|           | Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams  | 4583* |
|           | The Binary Floor Control Protocol (BFCP)  | 4582* |
|           | Cryptographically Generated Addresses (CGA) Extension Field Format  | 4581* |
|           | Dynamic Host Configuration Protocol for IPv6 (DHCPv6) Relay Agent Subscriber-ID Option  | 4580* |
|           | OSPF as the Provider/Customer Edge Protocol for BGP/MPLS IP Virtual Private Networks (VPNs)   | 4577* |
|           | Using a Link State Advertisement (LSA) Options Bit<br>to Prevent Looping in BGP/MPLS IP Virtual Private<br>Networks (VPNs)                            | 4576* |
|           | A Session Initiation Protocol (SIP) Event Package for Conference State  | 4575* |
|           | The Session Description Protocol (SDP) Label Attribute  | 4574* |
|           | MIME Type Registration for RTP Payload Format for H.224   | 4573* |
|           | Connection-Oriented Media Transport over the<br>Transport Layer Security (TLS) Protocol in the<br>Session Description Protocol (SDP)                  | 4572* |
|           | Framing Real-time Transport Protocol (RTP) and RTP Control Protocol (RTCP) Packets over Connection-Oriented Transport                                 | 4571* |
|           | Session Description Protocol (SDP) Source Filters   | 4570* |

| RFC 5000 | Internet Official Protocol Standards   | May 2008 |
|----------|--|----------|
|          | Session Description Protocol (SDP) Security Descriptions for Media Streams   | 4568*    |
|          | Key Management Extensions for Session Description Protocol (SDP) and Real Time Streaming Protocol (RTSP)   | 4567*    |
| SDP      | SDP: Session Description Protocol  | 4566*    |
|          | The Key ID Information Type for the General Extension Payload in Multimedia Internet KEYing (MIKEY)  | 4563*    |
|          | Definition of a Record Route Object (RRO) Node-Id<br>Sub-Object  | 4561*    |
|          | Definitions of Managed Objects for Remote Ping,<br>Traceroute, and Lookup Operations   | 4560*    |
|          | Node-ID Based Resource Reservation Protocol (RSVP)<br>Hello: A Clarification Statement   | 4558*    |
|          | Online Certificate Status Protocol (OCSP) Support<br>for Public Key Cryptography for Initial<br>Authentication in Kerberos (PKINIT)  | 4557*    |
|          | Public Key Cryptography for Initial Authentication in Kerberos (PKINIT)  | 4556*    |
|          | IKEv2 Mobility and Multihoming Protocol (MOBIKE)   | 4555*    |
| SATOP    | Structure-Agnostic Time Division Multiplexing (TDM) over Packet (SATOP)  | 4553*    |
|          | Authentication/Confidentiality for OSPFv3  | 4552*    |
|          | IMAP Extension for Conditional STORE Operation or Quick Flag Changes Resynchronization   | 4551*    |
|          | Internet Email to Support Diverse Service<br>Environments (Lemonade) Profile   | 4550*    |
|          | Internet Code Point (ICP) Assignments for NSAP<br>Addresses  | 4548*    |
|          | Event Notification Management Information Base for<br>Data over Cable Service Interface Specifications<br>(DOCSIS)-Compliant Cable Modems and Cable Modem<br>Termination Systems | 4547*    |
|          | Radio Frequency (RF) Interface Management Information Base for Data over Cable Service Interface Specifications (DOCSIS) 2.0 Compliant RF Interfaces                             | 4546*    |
|          | Definitions of Managed Objects for IP Storage User<br>Identity Authorization   | 4545*    |
|          | Definitions of Managed Objects for Internet Small Computer System Interface (iSCSI)  | 4544*    |
|          | The Use of Galois Message Authentication Code (GMAC) in IPsec ESP and AH   | 4543*    |
|          | Request Authorization through Dialog Identification in the Session Initiation Protocol (SIP)   | 4538*    |
|          |  | 45054    |

4537\*

----- Kerberos Cryptosystem Negotiation Extension

|            | GSAKMP: Group Secure Association Key Management Protocol                     | 4535* |
|------------|--|-------|
|            | Group Security Policy Token v1   | 4534* |
|            | Lightweight Directory Access Protocol (LDAP) "Who am I?" Operation           | 4532* |
|            | Lightweight Directory Access Protocol (LDAP) entryUUID Operational Attribute | 4530* |
|            | Lightweight Directory Access Protocol (LDAP) Assertion Control               | 4528* |
|            | Lightweight Directory Access Protocol (LDAP) Read<br>Entry Controls          | 4527* |
|            | Lightweight Directory Access Protocol (LDAP) Absolute True and False Filters | 4526* |
|            | COSINE LDAP/X.500 Schema   | 4524* |
|            | Lightweight Directory Access Protocol (LDAP) Schema                          | 4523* |
|            | Definitions for X.509 Certificates   | 1010  |
|            | Lightweight Directory Access Protocol (LDAP): The                            | 4522* |
|            | Binary Encoding Option   |       |
|            | Lightweight Directory Access Protocol (LDAP): Schema                         | 4519* |
|            | for User Applications  |       |
|            | Lightweight Directory Access Protocol (LDAP):                                | 4518* |
|            | Internationalized String Preparation   |       |
| LDAP3-ATD  | Lightweight Directory Access Protocol (LDAP): Syntaxes and Matching Rules    | 4517* |
| LDAP-URL   | Lightweight Directory Access Protocol (LDAP):                                | 4516* |
| DDIII ORD  | Uniform Resource Locator   | 1310  |
| STR-LDAP   | Lightweight Directory Access Protocol (LDAP): String                         | 4515* |
| 2111       | Representation of Search Filters   | 1010  |
| LDAP3-UTF8 | Lightweight Directory Access Protocol (LDAP): String                         | 4514* |
|            | Representation of Distinguished Names  |       |
| LDAP       | Lightweight Directory Access Protocol (LDAP):                                | 4513* |
|            | Authentication Methods and Security Mechanisms                               |       |
|            | Lightweight Directory Access Protocol (LDAP):                                | 4512* |
|            | Directory Information Models   | 1011  |
| LDAP       | Lightweight Directory Access Protocol (LDAP): The                            | 4511* |
|            | Protocol   |       |
| LDAPV3     | Lightweight Directory Access Protocol (LDAP):                                | 4510* |
|            | Technical Specification Road Map   | 1010  |
|            | Use of SHA-256 in DNSSEC Delegation Signer (DS)                              | 4509* |
|            | Resource Records (RRs)   | 1007  |
|            | Conveying Feature Tags with the Session Initiation                           | 4508* |
|            | Protocol (SIP) REFER Method  |       |
| SASL-ANON  | Anonymous Simple Authentication and Security Layer                           | 4505* |
|            | (SASL) Mechanism   |       |
|            | Domain Name System Uniform Resource Identifiers                              | 4501* |
|            | A Resource Reservation Protocol (RSVP) Extension for                         | 4495* |
|            | the Reduction of Bandwidth of a Reservation Flow                             |       |
|            | The AES-CMAC-96 Algorithm and Its Use with IPsec                             | 4494* |
|            | 5. 5   | -     |

|         | Using the GOST R 34.10-94, GOST R 34.10-2001, and GOST R 34.11-94 Algorithms with the Internet X.509  | 4491* |
|---------|---|-------|
|         | Public Key Infrastructure Certificate and CRL Profile Using the GOST 28147-89, GOST R 34.11-94, GOST R 34.10-94, and GOST R 34.10-2001 Algorithms with Cryptographic Message Syntax (CMS) | 4490* |
|         | A Method for Generating Link-Scoped IPv6 Multicast<br>Addresses   | 4489* |
|         | Suppression of Session Initiation Protocol (SIP) REFER Method Implicit Subscription   | 4488* |
|         | Subcodes for BGP Cease Notification Message   | 4486* |
|         | A Mechanism for Content Indirection in Session  | 4483* |
|         | Initiation Protocol (SIP) Messages  |       |
|         | CIPID: Contact Information for the Presence Information Data Format   | 4482* |
|         | Timed Presence Extensions to the Presence   | 4481* |
|         | Information Data Format (PIDF) to Indicate Status   |       |
|         | Information for Past and Future Time Intervals  |       |
|         | RPID: Rich Presence Extensions to the Presence  | 4480* |
|         | Information Data Format (PIDF)  |       |
|         | A Data Model for Presence   | 4479* |
|         | Attribute Certificate (AC) Policies Extension   | 4476* |
|         | Enhancements for Authenticated Identity Management  | 4474* |
|         | in the Session Initiation Protocol (SIP)  |       |
|         | Minimally Covering NSEC Records and DNSSEC On-line Signing  | 4470* |
|         | Internet Message Access Protocol (IMAP) CATENATE Extension  | 4469* |
| URLAUTH | Message Submission BURL Extension   | 4468* |
|         | Internet Message Access Protocol (IMAP) - URLAUTH   | 4467* |
|         | Extension   | 1107  |
|         | Collected Extensions to IMAP4 ABNF  | 4466* |
|         | Generic Security Service Application Program  | 4462* |
|         | Interface (GSS-API) Authentication and Key Exchange for the Secure Shell (SSH) Protocol   | 1102  |
|         | Definition of Managed Objects for Small Computer<br>System Interface (SCSI) Entities  | 4455* |
|         | Asynchronous Transfer Mode (ATM) over Layer 2 Tunneling Protocol Version 3 (L2TPv3)   | 4454* |
|         | Securing Mobile IPv6 Route Optimization Using a Static Shared Key   | 4449* |
|         | Encapsulation Methods for Transport of Ethernet over MPLS Networks  | 4448* |
|         | Pseudowire Setup and Maintenance Using the Label  | 4447* |
|         | Distribution Protocol (LDP) Management Information Base for Intermediate System to Intermediate System (IS-IS)  | 4444* |

|        | Bootstrapping Timed Efficient Stream Loss-Tolerant Authentication (TESLA)   | 4442*          |
|--------|---|----------------|
|        | Fibre Channel Fabric Address Manager MIB                                    | 4439*          |
|        | Fibre-Channel Name Server MIB   | 4438*          |
|        | Detecting Network Attachment in IPv4 (DNAv4)                                | 4436*          |
|        | The AES-XCBC-PRF-128 Algorithm for the Internet Key                         | 4434*          |
|        | Exchange Protocol (IKE)   |                |
|        | Mobile IPv4 Dynamic Home Agent (HA) Assignment                              | 4433*          |
|        | RSA Key Exchange for the Secure Shell (SSH)                                 | 4432*          |
|        | Transport Layer Protocol  |                |
|        | Kerberized Internet Negotiation of Keys (KINK)                              | 4430*          |
|        | Optimistic Duplicate Address Detection (DAD) for IPv6                       | 4429*          |
|        | Generalized Multi-Protocol Label Switching (GMPLS)                          | 4426*          |
|        | Recovery Functional Specification   | 1120           |
|        | RTP Payload Format for Video Codec 1 (VC-1)                                 | 4425*          |
|        | Real-Time Transport Protocol (RTP) Payload Format                           | 4424*          |
|        | for the Variable-Rate Multimode Wideband (VMR-WB)                           | 1121           |
|        | Extension Audio Codec   |                |
| SASL   | Simple Authentication and Security Layer (SASL)                             | 4422*          |
| DADE   | RTP Payload Format for Uncompressed Video:                                  | 4421*          |
|        | Additional Colour Sampling Modes  | 1121           |
|        | Encoding of Attributes for Multiprotocol Label                              | 4420*          |
|        | Switching (MPLS) Label Switched Path (LSP)                                  | 1120           |
|        | Establishment Using Resource ReserVation                                    |                |
|        | Protocol-Traffic Engineering (RSVP-TE)                                      |                |
|        | Diffie-Hellman Group Exchange for the Secure Shell                          | 4419*          |
|        | (SSH) Transport Layer Protocol  | 4417           |
|        | IANA Registration for Enumservice Voice                                     | 4415*          |
|        | An ENUM Registry Type for the Internet Registry                             | 4414*          |
|        | Information Service (IRIS)  | 1111           |
|        | Communications Resource Priority for the Session                            | 4412*          |
|        | Initiation Protocol (SIP)   | 1112           |
|        | Extending the Session Initiation Protocol (SIP)                             | 4411*          |
|        | Reason Header for Preemption Events   | 4411           |
|        | Definitions of Managed Objects for Fibre Channel                            | 4404*          |
|        | Over TCP/IP (FCIP)  | 1101           |
|        | A Pseudo-Random Function (PRF) for the Kerberos V                           | 4402*          |
|        | Generic Security Service Application Program                                | 4402           |
|        | Interface (GSS-API) Mechanism   |                |
|        | A Pseudo-Random Function (PRF) API Extension for the                        | 4401*          |
|        | Generic Security Service Application Program                                | 4401           |
|        |   |                |
| CC DNC | Interface (GSS-API)   | 1200*          |
| SC-DNS | Storing Certificates in the Domain Name System (DNS)                        | 4398*<br>4396* |
|        | RTP Payload Format for 3rd Generation Partnership Project (3GPP) Timed Text | 4370 "         |
|        | MIME Type Registrations for 3GPP2 Multimedia Files                          | 4393*          |
|        | Transmission of IP over InfiniBand (IPoIB)                                  | 4393*          |
|        | TIANSHIESSION OF IN OVER INTINIBANG (IPOIB)                                 | 4371°          |

| <br>Dynamic Host Configuration Protocol (DHCP) over InfiniBand   | 4390* |
|--|-------|
| <br>Dynamic Host Configuration Protocol (DHCP) Leasequery  | 4388* |
| <br>Internet X.509 Public Key Infrastructure Operational Protocols: Certificate Store Access via HTTP  | 4387* |
| <br>Pseudowire Emulation Edge-to-Edge (PWE3) Control Word for Use over an MPLS PSN   | 4385* |
| <br>The Use of Timed Efficient Stream Loss-Tolerant Authentication (TESLA) in the Secure Real-time Transport Protocol (SRTP)                 | 4383* |
| <br>MPLS/BGP Layer 3 Virtual Private Network (VPN) Management Information Base   | 4382* |
| <br>Teredo: Tunneling IPv6 over UDP through Network Address Translations (NATs)  | 4380* |
| <br>Detecting Multi-Protocol Label Switched (MPLS) Data<br>Plane Failures  | 4379* |
| <br>Chargeable User Identity   | 4372* |
| <br>Lightweight Directory Access Protocol (LDAP) Proxied Authorization Control   | 4370* |
| <br>Definitions of Managed Objects for Internet Fibre Channel Protocol (iFCP)  | 4369* |
| <br>Multiprotocol Label Switching (MPLS)  Label-Controlled Asynchronous Transfer Mode (ATM)  and Frame-Relay Management Interface Definition | 4368* |
| <br>Transport Layer Security (TLS) Extensions  | 4366* |
| <br>BGP/MPLS IP Virtual Private Networks (VPNs)  | 4364* |
| <br>Definitions of Managed Objects for Bridges with  | 4363* |
| Traffic Classes, Multicast Filtering, and Virtual LAN Extensions   |       |
| <br>RObust Header Compression (ROHC): A Link-Layer Assisted Profile for IP/UDP/RTP   | 4362* |
| <br>Node-specific Client Identifiers for Dynamic Host<br>Configuration Protocol Version Four (DHCPv4)  | 4361* |
| <br>BGP Extended Communities Attribute   | 4360* |
| <br>The Use of RSA/SHA-1 Signatures within Encapsulating Security Payload (ESP) and Authentication Header (AH)                               | 4359* |
| <br>Mapping Between the Multimedia Messaging Service (MMS) and Internet Mail   | 4356* |
| <br>IANA Registration for Enumservices email, fax, mms, ems, and sms   | 4355* |
| <br>RTP Payload Format for the Extended Adaptive Multi-Rate Wideband (AMR-WB+) Audio Codec   | 4352* |
| <br>High-Level Data Link Control (HDLC) Frames over Layer 2 Tunneling Protocol, Version 3 (L2TPv3)   | 4349* |
| <br>Real-Time Transport Protocol (RTP) Payload Format<br>for the Variable-Rate Multimode Wideband (VMR-WB)<br>Audio Codec                    | 4348* |
| <br>Datagram Transport Layer Security  | 4347* |

|            | The Transport Layer Security (TLS) Protocol Version 1.1  | 4346* |
|------------|--|-------|
|            | Improved Arcfour Modes for the Secure Shell (SSH) Transport Layer Protocol   | 4345* |
|            | The Secure Shell (SSH) Transport Layer Encryption Modes  | 4344* |
|            | Domain Name System (DNS) Case Insensitivity Clarification  | 4343* |
|            | Profile for Datagram Congestion Control Protocol (DCCP) Congestion Control ID 3: TCP-Friendly Rate Control (TFRC)                              | 4342* |
|            | Profile for Datagram Congestion Control Protocol (DCCP) Congestion Control ID 2: TCP-like Congestion Control                                   | 4341* |
|            | Datagram Congestion Control Protocol (DCCP)  | 4340* |
|            | Transmission of IPv6, IPv4, and Address Resolution<br>Protocol (ARP) Packets over Fibre Channel  | 4338* |
|            | MIME Type Registration for MPEG-4  | 4337* |
|            | The Secure Shell (SSH) Session Channel Break   | 4335* |
|            | Extension  | 1000  |
|            | Certificate Extensions and Attributes Supporting Authentication in Point-to-Point Protocol (PPP) and Wireless Local Area Networks (WLAN)       | 4334* |
|            | Quota and Size Properties for Distributed Authoring and Versioning (DAV) Collections   | 4331* |
|            | Generalized Multi-Protocol Label Switching (GMPLS) Signaling Extensions for G.709 Optical Transport Networks Control                           | 4328* |
|            | Unidirectional Lightweight Encapsulation (ULE) for<br>Transmission of IP Datagrams over an MPEG-2<br>Transport Stream (TS)                     | 4326* |
|            | Internet X.509 Public Key Infrastructure Authority Information Access Certificate Revocation List (CRL) Extension                              | 4325* |
|            | Data Over Cable System Interface Specification Quality of Service Management Information Base (DOCSIS-QoS MIB)                                 | 4323* |
|            | Actions Addressing Identified Issues with the Session Initiation Protocol's (SIP) Non-INVITE Transaction                                       | 4320* |
|            | Definitions of Managed Objects for High Bit-Rate DSL - 2nd generation (HDSL2) and Single-Pair High-Speed Digital Subscriber Line (SHDSL) Lines | 4319* |
|            | Definitions of Managed Objects for Bridges with Rapid Spanning Tree Protocol   | 4318* |
| IMAP4UIDPL | Internet Message Access Protocol (IMAP) - UIDPLUS extension  | 4315* |
| IMAP4-ACL  | IMAP4 Access Control List (ACL) Extension  | 4314* |

|           | The Camellia Cipher Algorithm and Its Use With IPsec  | 4312* |
|-----------|---|-------|
|           | IPv6 Host-to-Router Load Sharing                      | 4311* |
|           | Domain Name System (DNS) Security Extensions Mapping  | 4310* |
|           | for the Extensible Provisioning Protocol (EPP)        |       |
|           | Using Advanced Encryption Standard (AES) CCM Mode     | 4309* |
|           | with IPsec Encapsulating Security Payload (ESP)       |       |
|           | Cryptographic Suites for IPsec                        | 4308* |
|           | Cryptographic Algorithms for Use in the Internet Key  | 4307* |
|           | Exchange Version 2 (IKEv2)                            |       |
| ISAKMPSEC | Internet Key Exchange (IKEv2) Protocol                | 4306* |
|           | Extended Sequence Number (ESN) Addendum to IPsec      | 4304* |
|           | Domain of Interpretation (DOI) for Internet Security  |       |
|           | Association and Key Management Protocol (ISAKMP)      |       |
| ESP       | IP Encapsulating Security Payload (ESP)               | 4303* |
| IP-AUTH   | IP Authentication Header                              | 4302* |
| IPSEC     | Security Architecture for the Internet Protocol       | 4301* |
|           | RTP Payload Format for BroadVoice Speech Codecs       | 4298* |
|           | Mobile IPv6 Management Information Base               | 4295* |
|           | Management Information Base for the Internet          | 4293* |
|           | Protocol (IP)   |       |
| TABLE-MIB | IP Forwarding Table MIB                               | 4292* |
|           | The Atom Syndication Format                           | 4287* |
|           | Multicast Router Discovery                            | 4286* |
|           | Mobile Node Identifier Option for Mobile IPv6 (MIPv6) | 4283* |
| NAI       | The Network Access Identifier                         | 4282* |
|           | The Codecs Parameter for "Bucket" Media Types         | 4281* |
|           | Dynamic Host Configuration Protocol (DHCP) Options    | 4280* |
|           | for Broadcast and Multicast Control Servers           |       |
|           | Pre-Shared Key Ciphersuites for Transport Layer       | 4279* |
|           | Security (TLS)  |       |
| BGP-4-MIB | Definitions of Managed Objects for BGP-4              | 4273* |
|           | Entity State MIB                                      | 4268* |
|           | The gopher URI Scheme                                 | 4266* |
|           | Definition of Textual Conventions for Virtual         | 4265* |
|           | Private Network (VPN) Management                      |       |
|           | X.509 Certificate Extension for Secure/Multipurpose   | 4262* |
|           | Internet Mail Extensions (S/MIME) Capabilities        |       |
|           | Common Open Policy Service (COPS) Over Transport      | 4261* |
|           | Layer Security (TLS)                                  |       |
|           | Generic Message Exchange Authentication for the       | 4256* |
|           | Secure Shell Protocol (SSH)                           |       |
|           | Using DNS to Securely Publish Secure Shell (SSH) Key  | 4255* |
|           | Fingerprints  |       |
|           | The Secure Shell (SSH) Connection Protocol            | 4254* |
|           | The Secure Shell (SSH) Transport Layer Protocol       | 4253* |
|           | The Secure Shell (SSH) Authentication Protocol        | 4252* |
|           | The Secure Shell (SSH) Protocol Architecture          | 4251* |
|           | The Secure Shell (SSH) Protocol Assigned Numbers      | 4250* |
|           |   |       |

|            | The telnet URI Scheme                                | 4248*      |
|------------|--|------------|
|            | An Extension to the Session Initiation Protocol      | 4244*      |
|            | (SIP) for Request History Information                |            |
|            | Vendor-Specific Information Suboption for the        | 4243*      |
|            | Dynamic Host Configuration Protocol (DHCP) Relay     |            |
|            | Agent Option   |            |
|            | Information Refresh Time Option for Dynamic Host     | 4242*      |
|            | Configuration Protocol for IPv6 (DHCPv6)             |            |
|            | Internet Voice Messaging (IVM)                       | 4239*      |
|            | Voice Message Routing Service                        | 4238*      |
|            | Voice Messaging Directory Service                    | 4237*      |
|            | HTTP Adaptation with Open Pluggable Edge Services    | 4236*      |
|            | (OPES)   | 1230       |
|            | An INVITE-Initiated Dialog Event Package for the     | 4235*      |
|            | Session Initiation Protocol (SIP)                    | 1233       |
|            | Integrated Services Digital Network (ISDN)           | 4233*      |
|            | Q.921-User Adaptation Layer                          | 1233       |
|            | Identifiers and Test Vectors for HMAC-SHA-224,       | 4231*      |
|            | HMAC-SHA-256, HMAC-SHA-384, and HMAC-SHA-512         | 4231       |
|            | Using the Simple Object Access Protocol (SOAP) in    | 4227*      |
|            | Blocks Extensible Exchange Protocol (BEEP)           | 4227       |
|            | Traffic Engineering Link Management Information Base | 4220*      |
|            |  | 4220*      |
| mpand touc | Securing FTP with TLS                                | 4217"      |
| TRANS-IPV6 | Basic Transition Mechanisms for IPv6 Hosts and       | 4213 ^     |
| y FOO ODME | Routers  | 4211*      |
| X.509-CRMF | Internet X.509 Public Key Infrastructure Certificate | 4211"      |
| DILLOND    | Request Message Format (CRMF)                        | 4010#      |
| PKICMP     | Internet X.509 Public Key Infrastructure Certificate | 4210*      |
|            | Management Protocol (CMP)                            | 4.0.0.0.ds |
|            | Link Management Protocol (LMP) for Dense Wavelength  | 4209*      |
|            | Division Multiplexing (DWDM) Optical Line Systems    | 40001      |
|            | Generalized Multiprotocol Label Switching (GMPLS)    | 4208*      |
|            | User-Network Interface (UNI): Resource ReserVation   |            |
|            | Protocol-Traffic Engineering (RSVP-TE) Support for   |            |
|            | the Overlay Model                                    |            |
|            | Synchronous Optical Network (SONET)/Synchronous      | 4207*      |
|            | Digital Hierarchy (SDH) Encoding for Link Management |            |
|            | Protocol (LMP) Test Messages                         |            |
|            | Label Switched Paths (LSP) Hierarchy with            | 4206*      |
|            | Generalized Multi-Protocol Label Switching (GMPLS)   |            |
|            | Traffic Engineering (TE)                             |            |
|            | Link Management Protocol (LMP)                       | 4204*      |
|            | OSPF Extensions in Support of Generalized            | 4203*      |
|            | Multi-Protocol Label Switching (GMPLS)               |            |
|            | Routing Extensions in Support of Generalized         | 4202*      |
|            | Multi-Protocol Label Switching (GMPLS)               |            |
|            | Link Bundling in MPLS Traffic Engineering (TE)       | 4201*      |
|            | The SEED Cipher Algorithm and Its Use with IPsec     | 4196*      |
|            |  |            |

|            | The S Hexdump Format                                 | 4194* |
|------------|--|-------|
|            | Unique Local IPv6 Unicast Addresses                  | 4193* |
|            | Default Router Preferences and More-Specific Routes  | 4191* |
|            | Definitions of Managed Objects for Bridges           | 4188* |
| BKIDGE-MIB | RTP Payload Format for AC-3 Audio                    | 4184* |
|            | <u>-</u>   |       |
|            | Removing a Restriction on the use of MPLS Explicit   | 4182* |
|            |  | 4170¥ |
|            | The Simple and Protected Generic Security Service    | 4178* |
|            | Application Program Interface (GSS-API) Negotiation  |       |
|            | Mechanism  | 41054 |
|            | RTP Payload Format for Uncompressed Video            | 4175* |
|            | The IPv4 Dynamic Host Configuration Protocol (DHCP)  | 4174* |
|            | Option for the Internet Storage Name Service         | 44501 |
|            | Bootstrapping Clients using the Internet Small       | 4173* |
|            | Computer System Interface (iSCSI) Protocol           |       |
|            | iFCP - A Protocol for Internet Fibre Channel Storage | 4172* |
|            | Networking   |       |
|            | Internet Storage Name Service (iSNS)                 | 4171* |
|            | The Stream Control Transmission Protocol (SCTP) as a | 4168* |
|            | Transport for the Session Initiation Protocol (SIP)  |       |
|            | Signaling System 7 (SS7) Message Transfer Part 2     | 4165* |
|            | (MTP2) - User Peer-to-Peer Adaptation Layer (M2PA)   |       |
|            | RObust Header Compression (ROHC): Context            | 4164* |
|            | Replication for ROHC Profiles                        |       |
|            | Addition of SEED Cipher Suites to Transport Layer    | 4162* |
|            | Security (TLS)                                       |       |
|            | Transport Performance Metrics MIB                    | 4150* |
|            | Definition of Managed Objects for Synthetic Sources  | 4149* |
|            | for Performance Monitoring Algorithms                |       |
|            | TCP-Based Media Transport in the Session Description | 4145* |
|            | Protocol (SDP)                                       |       |
|            | Facsimile Using Internet Mail (IFAX) Service of ENUM | 4143* |
|            | Full-mode Fax Profile for Internet Mail (FFPIM)      | 4142* |
|            | SMTP and MIME Extensions for Content Conversion      | 4141* |
|            | Entity MIB (Version 3)                               | 4133* |
|            | Addition of Camellia Cipher Suites to Transport      | 4132* |
|            | Layer Security (TLS)                                 |       |
|            | Management Information Base for Data Over Cable      | 4131* |
|            | Service Interface Specification (DOCSIS) Cable       |       |
|            | Modems and Cable Modem Termination Systems for       |       |
|            | Baseline Privacy Plus                                |       |
|            | MIME-Based Secure Peer-to-Peer Business Data         | 4130* |
|            | Interchange Using HTTP, Applicability Statement 2    |       |
|            | (AS2)  |       |
|            | Digital Private Network Signaling System             | 4129* |
|            | (DPNSS)/Digital Access Signaling System 2 (DASS 2)   |       |
|            | Extensions to the IUA Protocol                       |       |
|            |  |       |

|          | Protocol Extensions for Support of Diffserv-aware MPLS Traffic Engineering  | 4124*          |
|----------|---|----------------|
|          | A Universally Unique IDentifier (UUID) URN Namespace The Kerberos Version 5 Generic Security Service Application Program Interface (GSS-API) Mechanism: Version 2 | 4122*<br>4121* |
| KERBEROS | The Kerberos Network Authentication Service (V5)  | 4120*          |
|          | A Presence-based GEOPRIV Location Object Format   | 4119*          |
|          | E.164 Number Mapping for the Extensible Provisioning  | 4114*          |
|          | Protocol (EPP)  |                |
| MIB-UDP  | Management Information Base for the User Datagram Protocol (UDP)  | 4113*          |
|          | Electronic Commerce Modeling Language (ECML) Version 2 Specification  | 4112*          |
|          | Algorithms for Internet Key Exchange version 1 (IKEv1)  | 4109*          |
|          | Using Cryptographic Message Syntax (CMS) to Protect   | 4108*          |
|          | Firmware Packages   |                |
|          | The Use of Galois/Counter Mode (GCM) in IPsec   | 4106*          |
|          | Encapsulating Security Payload (ESP)  |                |
|          | Policy Core Extension Lightweight Directory Access  | 4104*          |
|          | Protocol Schema (PCELS)   |                |
|          | RTP Payload for Text Conversation   | 4103*          |
|          | Registration of the text/red MIME Sub-Type  | 4102*          |
|          | Attaching Meaning to Solicitation Class Keywords  | 4095*          |
|          | Usage of the Session Description Protocol (SDP)   | 4092*          |
|          | Alternative Network Address Types (ANAT) Semantics  |                |
|          | in the Session Initiation Protocol (SIP)  |                |
|          | The Alternative Network Address Types (ANAT)  | 4091*          |
|          | Semantics for the Session Description Protocol (SDP)  |                |
|          | Grouping Framework  |                |
|          | Fast Reroute Extensions to RSVP-TE for LSP Tunnels  | 4090*          |
|          | Uniform Resource Identifier (URI) Scheme for the  | 4088*          |
|          | Simple Network Management Protocol (SNMP)   |                |
|          | IP Tunnel MIB   | 4087*          |
|          | A Negative Acknowledgement Mechanism for Signaling  | 4077*          |
|          | Compression   |                |
|          | Simple Network Time Protocol (SNTP) Configuration   | 4075*          |
|          | Option for DHCPv6   |                |
|          | Protecting Multiple Contents with the Cryptographic   | 4073*          |
|          | Message Syntax (CMS)  |                |
|          | Diameter Extensible Authentication Protocol (EAP)   | 4072*          |
|          | Application   |                |
|          | Definitions of Managed Object Extensions for Very   | 4070*          |
|          | High Speed Digital Subscriber Lines (VDSL) Using  |                |
|          | Multiple Carrier Modulation (MCM) Line Coding   |                |

|         | Definitions of Managed Object Extensions for Very<br>High Speed Digital Subscriber Lines (VDSL) Using<br>Single Carrier Modulation (SCM) Line Coding                                     | 4069* |
|---------|--|-------|
|         | Experimental Message, Extensions, and Error Codes for Mobile IPv4  | 4064* |
|         | RTP Payload Formats for European Telecommunications<br>Standards Institute (ETSI) European Standard ES 202<br>050, ES 202 211, and ES 202 212 Distributed Speech<br>Recognition Encoding | 4060* |
|         | Use of the RSASSA-PSS Signature Algorithm in Cryptographic Message Syntax (CMS)  | 4056* |
|         | Additional Algorithms and Identifiers for RSA Cryptography for use in the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile             | 4055* |
|         | Additional XML Security Uniform Resource Identifiers (URIs)  | 4051* |
|         | Fibre Channel Management MIB   | 4044* |
|         | Internet X.509 Public Key Infrastructure Permanent Identifier  | 4043* |
|         | RTP Payload Format for a 64 kbit/s Transparent Call  | 4040* |
|         | Rapid Commit Option for the Dynamic Host Configuration Protocol version 4 (DHCPv4)   | 4039* |
|         | Open Pluggable Edge Services (OPES) Callout Protocol (OCP) Core  | 4037* |
|         | Management Information Base for Data Over Cable<br>Service Interface Specification (DOCSIS) Cable Modem<br>Termination Systems for Subscriber Management                                 | 4036* |
|         | Protocol Modifications for the DNS Security Extensions   | 4035* |
|         | Resource Records for the DNS Security Extensions   | 4034* |
|         | DNS Security Introduction and Requirements   | 4033* |
|         | Update to the Session Initiation Protocol (SIP) Preconditions Framework  | 4032* |
|         | The Authentication Suboption for the Dynamic Host<br>Configuration Protocol (DHCP) Relay Agent Option  | 4030* |
|         | Session Timers in the Session Initiation Protocol (SIP)  | 4028* |
|         | A Method for Storing IPsec Keying Material in DNS  | 4025* |
|         | Encapsulating MPLS in IP or Generic Routing Encapsulation (GRE)  | 4023* |
| MIB-TCP | Management Information Base for the Transmission Control Protocol (TCP)  | 4022* |
|         | Registration of Mail and MIME Header Fields  | 4021* |
|         | RObust Header Compression (ROHC): Profiles for User Datagram Protocol (UDP) Lite   | 4019* |

| <br>Finding Internet Small Computer Systems Interface (iSCSI) Targets and Name Servers by Using Service Location Protocol version 2 (SLPv2) | 4018*   |
|---|---------|
| <br>The Eifel Response Algorithm for TCP  | 4015*   |
| <br>Remote Authentication Dial-In User Service (RADIUS)   | 4014*   |
| Attributes Suboption for the Dynamic Host<br>Configuration Protocol (DHCP) Relay Agent<br>Information Option                                |         |
| <br>SASLprep: Stringprep Profile for User Names and Passwords   | 4013*   |
| <br>Routing Policy Specification Language next generation (RPSLng)  | 4012*   |
| <br>Policy Based Management MIB   | 4011*   |
| <br>Use of the SEED Encryption Algorithm in   | 4010*   |
| Cryptographic Message Syntax (CMS)  |         |
| <br>Definitions of Managed Objects for Network Address Translators (NAT)  | 4008*   |
| <br>IPv6 Scoped Address Architecture  | 4007*   |
| <br>Diameter Credit-Control Application   | 4006*   |
| <br>Diameter Network Access Server Application  | 4005*   |
| <br>Diameter Mobile IPv4 Application  | 4004*   |
| <br>GMPLS Signaling Procedure for Egress Control  | 4003*   |
| <br>IANA Registration for Enumservice 'web' and 'ft'  | 4002*   |
| <br>Textual Conventions for Internet Network Addresses  | 4001*   |
| <br>Internet Printing Protocol (IPP): Job and Printer   | 3998*   |
| Administrative Operations   |         |
| <br>Internet Printing Protocol (IPP): The 'ippget'  | 3996*   |
| Delivery Method for Event Notifications   |         |
| <br>Internet Printing Protocol (IPP): Event   | 3995*   |
| Notifications and Subscriptions   |         |
| <br>Indication of Message Composition for Instant Messaging   | 3994*   |
| <br>Subscriber-ID Suboption for the Dynamic Host  | 3993*   |
| Configuration Protocol (DHCP) Relay Agent Option  |         |
| <br>Internationalized Resource Identifiers (IRIs)   | 3987*   |
| <br>RTP Payload Format for H.264 Video  | 3984*   |
| <br>Using the Internet Registry Information Service   | 3983*   |
| (IRIS) over the Blocks Extensible Exchange Protocol (BEEP)  |         |
| <br>IRIS: A Domain Registry (dreg) Type for the   | 3982*   |
| Internet Registry Information Service (IRIS)  | -       |
| <br>IRIS: The Internet Registry Information Service   | 3981*   |
| (IRIS) Core Protocol  | 0,01    |
| <br>Tll Network Address Authority (NAA) Naming Format   | 3980*   |
| for iSCSI Node Names  | 5500    |
| <br>Network News Transfer Protocol (NNTP)   | 3977*   |
| <br>Cryptographically Generated Addresses (CGA)   | 3972*   |
| <br>SEcure Neighbor Discovery (SEND)  | 3971*   |
|   | J , , ± |

| <br>A Traffic Engineering (TE) MIB  | 3970* |
|---|-------|
| <br>The tel URI for Telephone Numbers   | 3966* |
| <br>Network Mobility (NEMO) Basic Support Protocol  | 3963* |
| <br>Advanced Encryption Standard (AES) Encryption for Kerberos 5  | 3962* |
| <br>Encryption and Checksum Specifications for Kerberos 5   | 3961* |
| <br>The Early Session Disposition Type for the Session  | 3959* |
| Initiation Protocol (SIP)   |       |
| <br>Domain-Based Application Service Location Using SRV<br>RRs and the Dynamic Delegation Discovery Service<br>(DDDS) | 3958* |
| <br>Authentication, Authorization, and Accounting (AAA) Registration Keys for Mobile IPv4                             | 3957* |
| <br>Embedding the Rendezvous Point (RP) Address in an IPv6 Multicast Address  | 3956* |
| <br>Telephone Number Mapping (ENUM) Service Registration for Presence Services  | 3953* |
| <br>UDP Encapsulation of IPsec ESP Packets  | 3948* |
| <br>Negotiation of NAT-Traversal in the IKE   | 3947* |
| <br>Generalized Multi-Protocol Label Switching (GMPLS)  | 3945* |
| Architecture  | 3713  |
| <br>Reclassifying Dynamic Host Configuration Protocol version 4 (DHCPv4) Options                                      | 3942* |
| <br>Calling Line Identification for Voice Mail Messages   | 3939* |
| <br>Video-Message Message-Context   | 3938* |
| <br>Layer Two Tunneling Protocol - Version 3 (L2TPv3)   | 3931* |
| <br>Lightweight Directory Access Protocol (LDAP) Client Update Protocol (LCUP)  | 3928* |
| <br>Dynamic Configuration of IPv4 Link-Local Addresses  | 3927* |
| <br>Vendor-Identifying Vendor Options for Dynamic Host<br>Configuration Protocol version 4 (DHCPv4)                   | 3925* |
| <br>End-to-End Signing and Object Encryption for the  | 3923* |
| Extensible Messaging and Presence Protocol (XMPP)   |       |
| <br>Mapping the Extensible Messaging and Presence Protocol (XMPP) to Common Presence and Instant Messaging (CPIM)     | 3922* |
| <br>Extensible Messaging and Presence Protocol (XMPP): Instant Messaging and Presence                                 | 3921* |
| <br>Extensible Messaging and Presence Protocol (XMPP): Core   | 3920* |
| <br>Domain Registry Grace Period Mapping for the Extensible Provisioning Protocol (EPP)                               | 3915* |
| <br>The Session Initiation Protocol (SIP) "Join" Header   | 3911* |
| <br>The SPIRITS (Services in PSTN requesting Internet   | 3910* |
| <br>Services) Protocol  | 3710  |
| <br>Lightweight Directory Access Protocol (LDAP) Cancel Operation   | 3909* |

|            | Session Initiation Protocol (SIP) Extension for Event State Publication | 3903* |
|------------|---|-------|
|            | Network Information Service (NIS) Configuration                         | 3898* |
|            | Options for Dynamic Host Configuration Protocol for                     | 3070  |
|            | IPv6 (DHCPv6)   |       |
| DCS ES MID |   | 3896* |
| D22-E2-MIR | Definitions of Managed Objects for the DS3/E3                           | 3090" |
|            | Interface Type  | 2004# |
|            | Sieve Extension: Copying Without Side Effects                           | 3894* |
|            | Session Initiation Protocol (SIP) Authenticated                         | 3893* |
|            | Identity Body (AIB) Format  |       |
|            | The Session Initiation Protocol (SIP) Referred-By                       | 3892* |
|            | Mechanism   |       |
|            | The Session Initiation Protocol (SIP) "Replaces"                        | 3891* |
|            | Header  |       |
|            | A Transport Independent Bandwidth Modifier for the                      | 3890* |
|            | Session Description Protocol (SDP)                                      |       |
|            | Message Tracking Query Protocol   | 3887* |
|            | An Extensible Message Format for Message Tracking                       | 3886* |
|            | Responses   | 3000  |
|            | SMTP Service Extension for Message Tracking                             | 3885* |
|            | Detecting Inactive Neighbors over OSPF Demand                           | 3883* |
|            |   | 3003" |
|            | Circuits (DC)   | 20004 |
|            | Call Processing Language (CPL): A Language for User                     | 3880* |
|            | Control of Internet Telephony Services                                  |       |
|            | Deprecating Site Local Addresses  | 3879* |
|            | Alarm Reporting Control Management Information Base (MIB)               | 3878* |
|            | Alarm Management Information Base (MIB)                                 | 3877* |
|            | Returning Matched Values with the Lightweight                           | 3876* |
|            | Directory Access Protocol version 3 (LDAPv3)                            |       |
|            | Stream Control Transmission Protocol (SCTP)                             | 3873* |
|            | Management Information Base (MIB)                                       | 3073  |
|            | Management Information Base for Telephony Routing                       | 3872* |
|            | over IP (TRIP)  | 3072  |
|            |   | 3868* |
|            | Signalling Connection Control Part User Adaptation                      | 3000" |
|            | Layer (SUA)   | 2066  |
|            | Language Tags and Ranges in the Lightweight                             | 3866  |
|            | Directory Access Protocol (LDAP)  |       |
|            | A No Soliciting Simple Mail Transfer Protocol (SMTP)                    | 3865* |
|            | Service Extension   |       |
|            | Presence Information Data Format (PIDF)                                 | 3863* |
|            | Common Presence and Instant Messaging (CPIM):                           | 3862* |
|            | Message Format  | 2061+ |
|            | Address Resolution for Instant Messaging and Presence                   | 3861* |
|            | Common Profile for Instant Messaging (CPIM)                             | 3860* |
|            | Common Profile for Presence (CPP)                                       | 3859* |
|            | An Extensible Markup Language (XML) Based Format for                    | 3858* |
|            | Watcher Information   |       |

|     | A Watcher Information Event Template-Package for the Session Initiation Protocol (SIP)                               | 3857* |
|-----|--|-------|
|     | A Presence Event Package for the Session Initiation Protocol (SIP)   | 3856* |
|     | Transporting Secure/Multipurpose Internet Mail Extensions (S/MIME) Objects in X.400                                  | 3855  |
|     | Securing X.400 Content with Secure/Multipurpose Internet Mail Extensions (S/MIME)                                    | 3854  |
| SIP | S/MIME Advanced Encryption Standard (AES) Requirement for the Session Initiation Protocol (SIP)                      | 3853  |
|     | Cryptographic Message Syntax (CMS)   | 3852  |
|     | Secure/Multipurpose Internet Mail Extensions (S/MIME) Version 3.1 Message Specification                              | 3851  |
|     | Secure/Multipurpose Internet Mail Extensions (S/MIME) Version 3.1 Certificate Handling                               | 3850  |
|     | ESMTP and LMTP Transmission Types Registration   | 3848  |
|     | Mobile IPv4 Extension for Carrying Network Access Identifiers  | 3846  |
|     | RObust Header Compression (ROHC): A Compression Profile for IP   | 3843  |
|     | A Message Summary and Message Waiting Indication<br>Event Package for the Session Initiation Protocol<br>(SIP)       | 3842* |
|     | Caller Preferences for the Session Initiation Protocol (SIP)   | 3841* |
|     | Indicating User Agent Capabilities in the Session Initiation Protocol (SIP)  | 3840* |
|     | MIME Type Registrations for 3rd Generation Partnership Project (3GPP) Multimedia files                               | 3839  |
|     | Recommendations for Automatic Responses to Electronic Mail   | 3834* |
|     | MIKEY: Multimedia Internet KEYing  | 3830* |
|     | The Lightweight User Datagram Protocol (UDP-Lite)  | 3828  |
|     | The Advanced Encryption Standard (AES) Cipher Algorithm in the SNMP User-based Security Model                        | 3826  |
|     | Dynamic Host Configuration Protocol Option for Coordinate-based Location Configuration Information                   | 3825  |
|     | Finding Fibre Channel over TCP/IP (FCIP) Entities Using Service Location Protocol version 2 (SLPv2)                  | 3822  |
|     | Fibre Channel Over TCP/IP (FCIP)   | 3821  |
|     | Internet X.509 Public Key Infrastructure (PKI) Proxy Certificate Profile   | 3820  |
|     | Definitions of Managed Objects for RObust Header<br>Compression (ROHC)   | 3816  |
|     | Definitions of Managed Objects for the Multiprotocol<br>Label Switching (MPLS), Label Distribution Protocol<br>(LDP) | 3815  |

|           | Multiprotocol Label Switching (MPLS) Forwarding                           | 3814 |
|-----------|---|------|
|           | Equivalence Class To Next Hop Label Forwarding Entry                      |      |
|           | (FEC-To-NHLFE) Management Information Base (MIB)                          |      |
|           | Multiprotocol Label Switching (MPLS) Label Switching                      | 3813 |
|           | Router (LSR) Management Information Base (MIB)                            |      |
|           | Multiprotocol Label Switching (MPLS) Traffic                              | 3812 |
|           | Engineering (TE) Management Information Base (MIB)                        |      |
|           | Definitions of Textual Conventions (TCs) for                              | 3811 |
|           | Multiprotocol Label Switching (MPLS) Management                           |      |
|           | Multicast Listener Discovery Version 2 (MLDv2) for IPv6                   | 3810 |
|           | V5.2-User Adaptation Layer (V5UA)   | 3807 |
| Print-MIB | Printer MIB v2  | 3805 |
|           | Voice Profile for Internet Mail (VPIM) Addressing                         | 3804 |
|           | Security Considerations for Signaling Transport (SIGTRAN) Protocols       | 3788 |
|           | The NewReno Modification to TCP's Fast Recovery Algorithm                 | 3782 |
|           | X.509 Extensions for IP Addresses and AS Identifiers                      | 3779 |
|           | Using IPsec to Protect Mobile IPv6 Signaling Between                      | 3776 |
|           | Mobile Nodes and Home Agents  |      |
|           | Mobility Support in IPv6  | 3775 |
|           | Point-to-Point Protocol (PPP) Vendor Protocol                             | 3772 |
|           | Securely Available Credentials Protocol                                   | 3767 |
|           | enumservice registration for Session Initiation                           | 3764 |
|           | Protocol (SIP) Addresses-of-Record  |      |
|           | Telephone Number Mapping (ENUM) Service Registration for H.323            | 3762 |
|           | The E.164 to Uniform Resource Identifiers (URI)                           | 3761 |
|           | Dynamic Delegation Discovery System (DDDS) Application (ENUM)             |      |
|           | Stream Control Transmission Protocol (SCTP) Partial Reliability Extension | 3758 |
|           | Transport Layer Security Protocol Compression Methods                     | 3749 |
| PPP-EAP   | Extensible Authentication Protocol (EAP)                                  | 3748 |
|           | The Differentiated Services Configuration MIB                             | 3747 |
|           | MIME Type Registrations for JPEG 2000 (ISO/IEC 15444)                     | 3745 |
|           | Web Distributed Authoring and Versioning (WebDAV) Access Control Protocol | 3744 |
|           | Internet X.509 Public Key Infrastructure: Qualified Certificates Profile  | 3739 |
|           | IANA Guidelines for the Registry of Remote Monitoring (RMON) MIB modules  | 3737 |
|           | Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6     | 3736 |
|           | Application Performance Measurement MIB                                   | 3729 |
|           | Definitions of Managed Objects for Very High Speed                        | 3728 |
|           | Digital Subscriber Lines (VDSL)   |      |

|     | ASN.1 Module Definition for the LDAP and X.500 Component Matching Rules | 3727  |
|-----|---|-------|
|     | Securing Block Storage Protocols over IP                                | 3723  |
|     | String Profile for Internet Small Computer Systems                      | 3722  |
|     | Interface (iSCSI) Names   |       |
|     | Internet Small Computer Systems Interface (iSCSI)                       | 3720  |
|     | The Secure Real-time Transport Protocol (SRTP)                          | 3711  |
|     | Internet X.509 Public Key Infrastructure: Logotypes                     | 3709  |
|     | in X.509 Certificates   | 3703  |
|     | High Capacity Textual Conventions for MIB Modules                       | 3705  |
|     | Using Performance History Based on 15 Minute                            | 3703  |
|     | Intervals   |       |
|     | Policy Core Lightweight Directory Access Protocol                       | 3703  |
|     | (LDAP) Schema   | 3703  |
|     | Lightweight Directory Access Protocol (LDAP):                           | 3698  |
|     | Additional Matching Rules   | 3090  |
|     | IPv6 Flow Label Specification   | 3697  |
|     |   | 3691  |
|     | Internet Message Access Protocol (IMAP) UNSELECT                        | 3091  |
|     | command   | 3687  |
|     | Lightweight Directory Access Protocol (LDAP) and                        | 3007  |
|     | X.500 Component Matching Rules  | 2606  |
|     | Using Advanced Encryption Standard (AES) Counter                        | 3686  |
|     | Mode With IPsec Encapsulating Security Payload (ESP)                    | 2600  |
|     | A Session Initiation Protocol (SIP) Event Package                       | 3680  |
|     | for Registrations   | 2676  |
|     | The Text/Plain Format and DelSp Parameters                              | 3676  |
|     | Lightweight Directory Access Protocol version 3                         | 3673  |
|     | (LDAPv3): All Operational Attributes                                    | 0.550 |
|     | Subentries in the Lightweight Directory Access                          | 3672  |
|     | Protocol (LDAP)   |       |
|     | Collective Attributes in the Lightweight Directory                      | 3671  |
|     | Access Protocol (LDAP)  |       |
|     | Information Model for Describing Network Device QoS                     | 3670  |
|     | Datapath Mechanisms   |       |
| FTP | Extensions to FTP   | 3659* |
|     | Use of the Camellia Encryption Algorithm in                             | 3657  |
|     | Cryptographic Message Syntax (CMS)                                      |       |
|     | Web Distributed Authoring and Versioning (WebDAV)                       | 3648  |
|     | Ordered Collections Protocol  |       |
|     | DNS Configuration options for Dynamic Host                              | 3646  |
|     | Configuration Protocol for IPv6 (DHCPv6)                                |       |
|     | Generic Security Service Algorithm for Secret Key                       | 3645  |
|     | Transaction Authentication for DNS (GSS-TSIG)                           |       |
|     | Policy Quality of Service (QoS) Information Model                       | 3644  |
|     | Fibre Channel (FC) Frame Encapsulation                                  | 3643  |
|     | Common Elements of Generic String Encoding Rules                        | 3642  |
|     | (GSER) Encodings  |       |
|     | Generic String Encoding Rules (GSER) for ASN.1 Types                    | 3641  |
|     |   |       |

|   | RTP Payload Format for Transport of MPEG-4 Elementary Streams  | 3640 |
|---|--|------|
|   | Definitions of Managed Objects for the Ethernet WAN Interface Sublayer   | 3637 |
|   | Definitions of Managed Objects for the Ethernet-like Interface Types   | 3635 |
|   | Key Distribution Center (KDC) Server Address   | 3634 |
|   | Sub-option for the Dynamic Host Configuration  |      |
|   | Protocol (DHCP) CableLabs Client Configuration (CCC) Option  |      |
|   | IPv6 Prefix Options for Dynamic Host Configuration   | 3633 |
|   | Protocol (DHCP) version 6  |      |
|   | Traffic Engineering (TE) Extensions to OSPF Version 2  | 3630 |
|   | Graceful OSPF Restart  | 3623 |
|   | Power Ethernet MIB   | 3621 |
|   | The TUNNEL Profile   | 3620 |
|   | RTP Control Protocol Extended Reports (RTCP XR)  | 3611 |
|   | Session Initiation Protocol (SIP) Extension Header   | 3608 |
|   | Field for Service Route Discovery During Registration  |      |
|   | Definitions of Supplemental Managed Objects for ATM  | 3606 |
|   | Interface  | 2605 |
|   | Real Time Control Protocol (RTCP) attribute in   | 3605 |
|   | Session Description Protocol (SDP)   | 2600 |
|   | The AES-CBC Cipher Algorithm and Its Use with IPsec  | 3602 |
|   | Text String Notation for Dial Sequences and Global Switched Telephone Network (GSTN) / E.164 Addresses                             | 3601 |
|   | Handling of Unknown DNS Resource Record (RR) Types   | 3597 |
|   | Textual Conventions for IPv6 Flow Label  | 3595 |
|   | PacketCable Security Ticket Control Sub-Option for<br>the DHCP CableLabs Client Configuration (CCC) Option                         | 3594 |
|   | Definitions of Managed Objects for the Optical Interface Type  | 3591 |
|   | Source Address Selection for the Multicast Listener Discovery (MLD) Protocol   | 3590 |
|   | Diameter Base Protocol   | 3588 |
|   | IP Security Policy (IPSP) Requirements   | 3586 |
|   | IPsec Configuration Policy Information Model   | 3585 |
|   | An Extension to the Session Initiation Protocol  | 3581 |
|   | (SIP) for Symmetric Response Routing   |      |
|   | Mapping of Integrated Services Digital Network (ISDN) User Part (ISUP) Overlap Signalling to the Session Initiation Protocol (SIP) | 3578 |
|   | IANA Considerations for RADIUS (Remote   | 3575 |
|   | Authentication Dial In User Service)   | 5515 |
|   | Signalling of Modem-On-Hold status in Layer 2  | 3573 |
| _ | Tunneling Protocol (L2TP)  | 3313 |
|   | The AES-XCBC-MAC-96 Algorithm and Its Use With IPsec   | 3566 |
|   |  |      |

|           | Use of the Advanced Encryption Standard (AES) Encryption Algorithm in Cryptographic Message Syntax (CMS)   | 3565           |
|-----------|--|----------------|
|           | Use of the RSAES-OAEP Key Transport Algorithm in Cryptographic Message Syntax (CMS)  | 3560           |
|           | Multicast Address Allocation MIB   | 3559           |
|           | RTP Payload Format for Enhanced Variable Rate Codecs (EVRC) and Selectable Mode Vocoders (SMV)   | 3558           |
|           | RTP Payload Format for European Telecommunications<br>Standards Institute (ETSI) European Standard ES 201<br>108 Distributed Speech Recognition Encoding | 3557           |
|           | Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth   | 3556           |
|           | On the Use of Stream Control Transmission Protocol (SCTP) with IPsec   | 3554           |
|           | The Group Domain of Interpretation   | 3547           |
|           | Enhanced Compressed RTP (CRTP) for Links with High Delay, Packet Loss and Reordering   | 3545           |
| IPCOM-PPP | IP Header Compression over PPP   | 3544           |
|           | Registration Revocation in Mobile IPv4   | 3543           |
|           | Authentication, Authorization and Accounting (AAA) Transport Profile   | 3539           |
|           | Wrapping a Hashed Message Authentication Code (HMAC) key with a Triple-Data Encryption Standard (DES) Key or an Advanced Encryption Standard (AES) Key   | 3537           |
|           | The application/ogg Media Type   | 3534           |
| NFSv4     | Network File System (NFS) version 4 Protocol   | 3530           |
|           | Link Selection sub-option for the Relay Agent  | 3527           |
|           | Information Option for DHCPv4  | 3327           |
|           | More Modular Exponential (MODP) Diffie-Hellman   | 3526           |
|           | groups for Internet Key Exchange (IKE)   | 3320           |
|           | Mapping of Media Streams to Resource Reservation   | 3524           |
|           | Flows  | 3321           |
|           | Session Authorization Policy Element   | 3520           |
|           | Mobile IP Traversal of Network Address Translation   | 3519           |
|           | (NAT) Devices  |                |
| PPP-BCP   | Point-to-Point Protocol (PPP) Bridging Control Protocol (BCP)  | 3518           |
|           | A Conservative Selective Acknowledgment (SACK)-based<br>Loss Recovery Algorithm for TCP  | 3517           |
|           | IMAP4 Binary Content Extension   | 3516           |
|           | The Session Initiation Protocol (SIP) Refer Method   | 3515           |
| IPP-E-T   | Internet Printing Protocol/1.1: IPP URL Scheme   | 3510           |
|           | Message Disposition Notification (MDN) profile for   | 3503           |
|           | Internet Message Access Protocol (IMAP)  | · <del>-</del> |
|           | Internet Message Access Protocol (IMAP) -  | 3502           |
|           | MULTIAPPEND Extension  |                |
| IMAPv4    | INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1   | 3501           |

|     | Definitions of Managed Objects for Synchronous<br>Optical Network (SONET) Linear Automatic Protection | 3498 |
|-----|---|------|
|     | Switching (APS) Architectures   |      |
|     | RTP Payload Format for Society of Motion Picture and Television Engineers (SMPTE) 292M Video          | 3497 |
|     | Dynamic Host Configuration Protocol (DHCP) Option for CableLabs Client Configuration                  | 3495 |
|     | Punycode: A Bootstring encoding of Unicode for Internationalized Domain Names in Applications (IDNA)  | 3492 |
|     | Nameprep: A Stringprep Profile for Internationalized Domain Names (IDN)                               | 3491 |
|     | Internationalizing Domain Names in Applications (IDNA)  | 3490 |
|     | STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)    | 3489 |
|     | Compressing the Session Initiation Protocol (SIP)   | 3486 |
|     | The Session Initiation Protocol (SIP) and Session   | 3485 |
|     | Description Protocol (SDP) Static Dictionary for  | 3103 |
|     | Signaling Compression (SigComp)   |      |
|     | Default Address Selection for Internet Protocol   | 3484 |
|     | version 6 (IPv6)  | 3101 |
|     | Signalling Unnumbered Links in CR-LDP   | 3480 |
|     | (Constraint-Routing Label Distribution Protocol)  | 3100 |
|     | Fault Tolerance for the Label Distribution Protocol (LDP)   | 3479 |
|     | Graceful Restart Mechanism for Label Distribution Protocol  | 3478 |
|     | Signalling Unnumbered Links in Resource ReSerVation Protocol - Traffic Engineering (RSVP-TE)          | 3477 |
|     | Generalized Multi-Protocol Label Switching (GMPLS)  | 3473 |
|     | Signaling Resource ReserVation Protocol-Traffic Engineering (RSVP-TE) Extensions                      | 3173 |
|     | Generalized Multi-Protocol Label Switching (GMPLS)  | 3472 |
|     | Signaling Constraint-based Routed Label Distribution Protocol (CR-LDP) Extensions                     |      |
|     | Generalized Multi-Protocol Label Switching (GMPLS) Signaling Functional Description                   | 3471 |
| CIM | Policy Core Information Model (PCIM) Extensions   | 3460 |
|     | Critical Content Multi-purpose Internet Mail  | 3459 |
|     | Extensions (MIME) Parameter   |      |
|     | Message Context for Internet Mail   | 3458 |
|     | Dynamic Host Configuration Protocol (DHCPv4)  | 3456 |
|     | Configuration of IPsec Tunnel Mode  |      |
|     | Preparation of Internationalized Strings  | 3454 |
|     | ("stringprep")  |      |
|     | TCP Friendly Rate Control (TFRC): Protocol Specification  | 3448 |

|          | Time To Live (TTL) Processing in Multi-Protocol<br>Label Switching (MPLS) Networks  | 3443 |
|----------|---|------|
|          | The Classless Static Route Option for Dynamic Host Configuration Protocol (DHCP) version 4  | 3442 |
|          | Definitions of Extension Managed Objects for<br>Asymmetric Digital Subscriber Lines   | 3440 |
|          | Layer-Two Tunneling Protocol Extensions for PPP Link<br>Control Protocol Negotiation  | 3437 |
|          | Transport Layer Security over Stream Control Transmission Protocol  | 3436 |
|          | Remote Monitoring MIB Extensions for High Capacity Alarms   | 3434 |
|          | Entity Sensor Management Information Base   | 3433 |
|          | Network performance measurement with periodic streams   | 3432 |
|          | Session Initiation Protocol (SIP) Extension for Instant Messaging   | 3428 |
|          | Obsoleting IQUERY   | 3425 |
|          | Internet Media Type message/sipfrag   | 3420 |
|          | Textual Conventions for Transport Addresses   | 3419 |
|          | Zero-byte Support for Bidirectional Reliable Mode<br>(R-mode) in Extended Link-Layer Assisted RObust<br>Header Compression (ROHC) Profile | 3408 |
|          | Session Description Protocol (SDP) Simple Capability Declaration  | 3407 |
| NAPTR    | Dynamic Delegation Discovery System (DDDS) Part Four: The Uniform Resource Identifiers (URI)  | 3404 |
| NAPTR    | Dynamic Delegation Discovery System (DDDS) Part<br>Three: The Domain Name System (DNS) Database   | 3403 |
| NAPTR    | Dynamic Delegation Discovery System (DDDS) Part Two: The Algorithm  | 3402 |
|          | Integrated Services Digital Network (ISDN) User Part (ISUP) to Session Initiation Protocol (SIP) Mapping                                  | 3398 |
|          | Dynamic Host Configuration Protocol (DHCP) Domain<br>Search Option  | 3397 |
|          | Encoding Long Options in the Dynamic Host<br>Configuration Protocol (DHCPv4)  | 3396 |
| RMON-MIB | Remote Network Monitoring MIB Protocol Identifier<br>Reference Extensions   | 3395 |
|          | IP Packet Delay Variation Metric for IP Performance Metrics (IPPM)  | 3393 |
|          | Increasing TCP's Initial Window   | 3390 |
|          | Real-time Transport Protocol (RTP) Payload for Comfort Noise (CN)   | 3389 |
|          | Grouping of Media Lines in the Session Description Protocol (SDP)   | 3388 |
| IPP-E-T  | <pre>Internet Printing Protocol (IPP): The 'collection'   attribute syntax</pre>  | 3382 |

| IPP-E-T    | Internet Printing Protocol (IPP): Job Progress Attributes  | 3381 |
|------------|--|------|
| IPP-E-T    | <pre>Internet Printing Protocol (IPP): Job and Printer Set Operations</pre>                                | 3380 |
| IGMP       | Internet Group Management Protocol, Version 3  | 3376 |
|            | Layer Two Tunneling Protocol "L2TP" Management Information Base  | 3371 |
|            | Cryptographic Message Syntax (CMS) Algorithms  | 3370 |
|            | The 'go' URI Scheme for the Common Name Resolution Protocol  | 3368 |
|            | Common Name Resolution Protocol (CNRP)   | 3367 |
|            | Real-time Facsimile (T.38) - image/t38 MIME Sub-type Registration  | 3362 |
|            | Dynamic Host Configuration Protocol (DHCP-for-IPv4) Option for Session Initiation Protocol (SIP) Servers   | 3361 |
|            | Layer Two Tunnelling Protocol (L2TP) Over ATM Adaptation Layer 5 (AAL5)                                    | 3355 |
|            | Small Computer Systems Interface protocol over the Internet (iSCSI) Requirements and Design Considerations | 3347 |
| MOBILEIPSU | IP Mobility Support for IPv4   | 3344 |
|            | The Application Exchange (APEX) Option Party Pack, Part Deux!  | 3342 |
|            | The Application Exchange (APEX) Access Service   | 3341 |
|            | The Application Exchange Core  | 3340 |
|            | Date and Time on the Internet: Timestamps  | 3339 |
|            | Class Extensions for PPP over Asynchronous Transfer<br>Mode Adaptation Layer 2                             | 3337 |
|            | PPP Over Asynchronous Transfer Mode Adaptation Layer 2 (AAL2)  | 3336 |
|            | MIME-based Secure Peer-to-Peer Business Data<br>Interchange over the Internet                              | 3335 |
|            | Signaling System 7 (SS7) Message Transfer Part 2 (MTP2) - User Adaptation Layer                            | 3331 |
|            | Security Mechanism Agreement for the Session Initiation Protocol (SIP)                                     | 3329 |
|            | Session Initiation Protocol (SIP) Extension Header<br>Field for Registering Non-Adjacent Contacts          | 3327 |
|            | The Reason Header Field for the Session Initiation Protocol (SIP)  | 3326 |
|            | A Privacy Mechanism for the Session Initiation Protocol (SIP)  | 3323 |
|            | Signaling Compression (SigComp) - Extended Operations  | 3321 |
|            | Signaling Compression (SigComp)  | 3320 |
|            | Dynamic Host Configuration Protocol (DHCPv6) Options for Session Initiation Protocol (SIP) Servers         | 3319 |
|            | _  |      |

----- Dynamic Host Configuration Protocol for IPv6 (DHCPv6) 3315

| RFC 5000 | Internet Official Protocol Standards  | May 2008     |
|----------|---|--------------|
|          | Integration of Resource Management and Session Initiation Protocol (SIP)  | 3312         |
|          | The Session Initiation Protocol (SIP) UPDATE Method<br>Layer Two Tunneling Protocol (L2TP) Differentiated<br>Services Extension                       | 3311<br>3308 |
|          | Allocation Guidelines for IPv6 Multicast Addresses  | 3307         |
|          | Unicast-Prefix-based IPv6 Multicast Addresses   | 3306         |
|          | Layer Two Tunnelling Protocol (L2TP): ATM access network extensions   | 3301         |
|          | Content Negotiation for Messaging Services based on Email   | 3297         |
|          | Named Subordinate References in Lightweight Directory Access Protocol (LDAP) Directories  | 3296         |
|          | Definitions of Managed Objects for the General Switch Management Protocol (GSMP)  | 3295         |
|          | General Switch Management Protocol (GSMP) Packet Encapsulations for Asynchronous Transfer Mode (ATM) Ethernet and Transmission Control Protocol (TCP) | 3293         |
|          | General Switch Management Protocol (GSMP) V3  | 3292         |
|          | Management Information Base for the Differentiated Services Architecture  | 3289         |
|          | Remote Monitoring MIB Extensions for Differentiated Services  | 3287         |
|          | The VCDIFF Generic Differencing and Compression Data Format   | 3284         |
|          | An Internet Attribute Certificate Profile for Authorization   | 3281         |
|          | Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile  | 3280         |
|          | Algorithms and Identifiers for the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile                 | 3279         |
|          | Compressed Data Content Type for Cryptographic Message Syntax (CMS)   | 3274         |
|          | Remote Network Monitoring Management Information Base for High Capacity Networks  | 3273         |
|          | Multi-Protocol Label Switching (MPLS) Support of Differentiated Services  | 3270         |
|          | Advanced Encryption Standard (AES) Ciphersuites for<br>Transport Layer Security (TLS)   | 3268         |
| SIP      | Session Initiation Protocol (SIP)-Specific Event Notification   | 3265         |
| SIP      | An Offer/Answer Model with Session Description  | 3264         |

Session Initiation Protocol (SIP): Locating SIP

Reliability of Provisional Responses in Session

3263

3262

Protocol (SDP)

Initiation Protocol (SIP)

Servers

SIP

SIP

| RFC 5000 | Internet Official Protocol Standards   | May 2008     |
|----------|--|--------------|
| SIP      | SIP: Session Initiation Protocol The DOCSIS (Data-Over-Cable Service Interface   | 3261<br>3256 |
|          | Specifications) Device Class DHCP (Dynamic Host<br>Configuration Protocol) Relay Agent Information<br>Sub-option   |              |
|          | Extending Point-to-Point Protocol (PPP) over Synchronous Optical NETwork/Synchronous Digital Hierarchy (SONET/SDH) with virtual concatenation, high order and low order payloads | 3255         |
|          | Versioning Extensions to WebDAV (Web Distributed Authoring and Versioning)   | 3253         |
|          | An Expedited Forwarding PHB (Per-Hop Behavior)   | 3246         |
|          | Robust Header Compression (ROHC) over PPP  | 3241         |
|          | Definitions of Managed Objects for Scheduling Management Operations  | 3231         |
|          | Instance Digests in HTTP   | 3230         |
|          | Delta encoding in HTTP   | 3229         |
|          | DNSSEC and IPv6 A6 aware server/resolver message size requirements   | 3226         |
|          | Indicating Resolver Support of DNSSEC  | 3225         |
| SLP      | Vendor Extensions for Service Location Protocol,<br>Version 2  | 3224         |
|          | Telephony Routing over IP (TRIP)   | 3219         |
|          | LSP Modification Using CR-LDP  | 3214         |
|          | Constraint-Based LSP Setup using LDP   | 3212         |
|          | RSVP-TE: Extensions to RSVP for LSP Tunnels  | 3209         |
|          | SMTP Service Extension for Secure SMTP over Transport Layer Security   | 3207         |
|          | The SYS and AUTH POP Response Codes  | 3206         |
|          | MIME media types for ISUP and QSIG Objects   | 3204         |
|          | DHCP reconfigure extension   | 3203         |
|          | Definitions of Managed Objects for Frame Relay<br>Service Level Definitions  | 3202         |
|          | Definitions of Managed Objects for Circuit to Interface Translation  | 3201         |
|          | Reliable Delivery for syslog   | 3195         |
|          | Securing L2TP using IPsec  | 3193         |
|          | RTP Payload Format for 12-bit DAT Audio and 20- and 24-bit Linear Sampled Audio  | 3190         |
|          | RTP Payload Format for DV (IEC 61834) Video  | 3189         |
|          | Reuse of CMS Content Encryption Keys   | 3185         |
|          | Identity Representation for RSVP   | 3182         |
|          | Signaled Preemption Priority Policy Element  | 3181         |
|          | Aggregation of RSVP for IPv4 and IPv6 Reservations   | 3175         |
| IPCOMP   | IP Payload Compression Protocol (IPComp)   | 3173         |
|          | The Addition of Explicit Congestion Notification   | 3168         |
|          | (ECN) to IP  |              |

|           | Definitions of Managed Objects for the Delegation of Management Scripts                         | 3165 |
|-----------|---|------|
|           | RADIUS and IPv6   | 3162 |
| TSA       | <pre>Internet X.509 Public Key Infrastructure Time-Stamp   Protocol (TSP)</pre>                 | 3161 |
| PIB       | Structure of Policy Provisioning Information (SPPI)   | 3159 |
| MIME-PGP  | MIME Security with OpenPGP  | 3156 |
|           | PPP Multiplexing  | 3153 |
|           | Transmission of IPv6 Packets over IEEE 1394 Networks  | 3146 |
|           | L2TP Disconnect Cause Information   | 3145 |
|           | Remote Monitoring MIB Extensions for Interface Parameters Monitoring                            | 3144 |
|           | Per Hop Behavior Identification Codes   | 3140 |
|           | The Congestion Manager  | 3124 |
|           | Extensions to IPv6 Neighbor Discovery for Inverse Discovery Specification                       | 3122 |
|           | Authentication for DHCP Messages  | 3118 |
|           | Mobile IP Vendor/Organization-Specific Extensions   | 3115 |
|           | Service Location Protocol Modifications for IPv6  | 3111 |
|           | RSA/SHA-1 SIGs and RSA KEYs in the Domain Name<br>System (DNS)                                  | 3110 |
|           | Conventions for the use of the Session Description<br>Protocol (SDP) for ATM Bearer Connections | 3108 |
| SDP       | Carrying Label Information in BGP-4   | 3107 |
| OSPF-NSSA | The OSPF Not-So-Stubby Area (NSSA) Option   | 3101 |
| RSVP      | RSVP Cryptographic Authentication Updated Message Type Value                                    | 3097 |
|           | RObust Header Compression (ROHC): Framework and four profiles                                   | 3095 |
| COPS-PR   | COPS Usage for Policy Provisioning (COPS-PR)  | 3084 |
|           | Mapping the BEEP Core onto TCP  | 3081 |
| BEEP      | The Blocks Extensible Exchange Protocol Core  | 3080 |
|           | A Link-Layer Tunneling Mechanism for Unidirectional Links                                       | 3077 |
|           | DHC Load Balancing Algorithm  | 3074 |
| L2TP-FR   | Layer Two Tunneling Protocol (L2TP) over Frame Relay  | 3070 |
|           | An Anycast Prefix for 6to4 Relay Routers  | 3068 |
|           | LDAP Password Modify Extended Operation   | 3062 |
| CIM       | Policy Core Information Model Version 1 Specification   | 3060 |
| SLPv2     | Attribute List Extension for the Service Location Protocol                                      | 3059 |
|           | Connection of IPv6 Domains via IPv4 Clouds  | 3056 |
|           | Management Information Base for the PINT Services Architecture                                  | 3055 |
|           | TN3270E Service Location and Session Balancing  | 3049 |
|           | RTP Payload Format for ITU-T Recommendation G.722.1   | 3047 |
|           | DHCP Relay Agent Information Option   | 3046 |

|      | Enhancing TCP's Loss Recovery Using Limited Transmit VCID Notification over ATM link for LDP   | 3042<br>3038 |
|------|--|--------------|
|      | MPLS using LDP and ATM VC Switching  |              |
|      | <u> </u>   | 3035         |
|      | Use of Label Switching on Frame Relay Networks<br>Specification  | 3034         |
|      | The Assignment of the Information Field and Protocol Identifier in the Q.2941 Generic Identifier and Q.2957 User-to-user Signaling for the Internet Protocol | 3033         |
|      | MPLS Label Stack Encoding  | 3032         |
| MPLS | Multiprotocol Label Switching Architecture   | 3031         |
|      | SMTP Service Extensions for Transmission of Large  | 3030         |
|      | and Binary MIME Messages   |              |
|      | Reverse Tunneling for Mobile IP, revised   | 3024         |
|      | XML Media Types  | 3023         |
|      | Using 31-Bit Prefixes on IPv4 Point-to-Point Links   | 3021         |
|      | Definitions of Managed Objects for Monitoring and Controlling the UNI/NNI Multilink Frame Relay Function   | 3020         |
|      | IP Version 6 Management Information Base for The Multicast Listener Discovery Protocol   | 3019         |
|      | XML DTD for Roaming Access Phone Book  | 3017         |
|      | RTP Payload Format for MPEG-4 Audio/Visual Streams   | 3016         |
|      | Notification Log MIB   | 3014         |
|      | The IPv4 Subnet Selection Option for DHCP  | 3011         |
|      | Secure Domain Name System (DNS) Dynamic Update   | 3007         |
|      | Integrated Services in the Presence of Compressible  | 3007         |
|      | Flows  | 3006         |
|      | The User Class Option for DHCP   | 3004         |
|      | The audio/mpeg Media Type  | 3003         |
|      | Specification of the Null Service Type   | 2997         |
|      | Format of the RSVP DCLASS Object   | 2996         |
|      | Computing TCP's Retransmission Timer   | 2988         |
|      | Registration of Charset and Languages Media Features   | 2987         |
|      | Tags   |              |
|      | Use of the CAST-128 Encryption Algorithm in CMS  | 2984         |
|      | Distributed Management Expression MIB  | 2982         |
|      | Event MIB  | 2981         |
|      | The SIP INFO Method  | 2976         |
|      | IMAP4 ID extension   | 2971         |
|      | HTTP State Management Mechanism  | 2965         |
|      | RSVP Refresh Overhead Reduction Extensions   | 2961         |
|      | Real-Time Transport Protocol Management Information  | 2959         |
|      | Base   |              |
|      | Definitions of Managed Objects for Monitoring and  | 2955         |
|      | Controlling the Frame Relay/ATM PVC Service  |              |
|      | Interworking Function  |              |
|      |  |              |

| FR-MIB    | Definitions of Managed Objects for Frame Relay<br>Service           | 2954 |
|-----------|---|------|
|           | Telnet Encryption: CAST-128 64 bit Cipher Feedback                  | 2950 |
|           | Telnet Encryption: CAST-128 64 bit Output Feedback                  | 2949 |
|           | Telnet Encryption: DES3 64 bit Output Feedback                      | 2948 |
|           | Telnet Encryption: DES3 64 bit Cipher Feedback                      | 2947 |
|           | Telnet Data Encryption Option                                       | 2946 |
|           | The SRP Authentication and Key Exchange System                      | 2945 |
|           | Telnet Authentication: SRP  | 2944 |
|           | TELNET Authentication Using DSA                                     | 2943 |
|           | Telnet Authentication: Kerberos Version 5                           | 2943 |
|           |   |      |
| TOPT-AUTH | Telnet Authentication Option  | 2941 |
|           | Definitions of Managed Objects for Common Open                      | 2940 |
|           | Policy Service (COPS) Protocol Clients                              |      |
|           | Identifying Composite Media Features                                | 2938 |
|           | The Name Service Search Option for DHCP                             | 2937 |
| IOTP-HTTP | Internet Open Trading Protocol (IOTP) HTTP Supplement               | 2935 |
|           | Internet Group Management Protocol MIB                              | 2933 |
|           | DNS Request and Transaction Signatures ( SIG(0)s )                  | 2931 |
| TKEY-RR   | Secret Key Establishment for DNS (TKEY RR)                          | 2930 |
|           | List-Id: A Structured Field and Namespace for the                   | 2919 |
|           | Identification of Mailing Lists                                     |      |
|           | Route Refresh Capability for BGP-4                                  | 2918 |
|           | MIME Content Types in Media Feature Expressions                     | 2913 |
|           | Indicating Media Features for MIME Content                          | 2912 |
| IPP-M-S   | Internet Printing Protocol/1.1: Model and Semantics                 | 2911 |
| IPP-E-T   | Internet Printing Protocol/1.1: Encoding and                        | 2910 |
|           | Transport   |      |
|           | MADCAP Multicast Scope Nesting State Option                         | 2907 |
|           | Router Renumbering for IPv6   | 2894 |
|           | LDAP Control Extension for Server Side Sorting of<br>Search Results | 2891 |
|           | Key and Sequence Number Extensions to GRE                           | 2890 |
| SACK      | An Extension to the Selective Acknowledgement (SACK)                | 2883 |
|           | Option for TCP  |      |
|           | Content Feature Schema for Internet Fax (V2)                        | 2879 |
|           | Diffie-Hellman Proof-of-Possession Algorithms                       | 2875 |
|           | TCP Processing of the IPv4 Precedence Field                         | 2873 |
|           | Application and Sub Application Identity Policy                     | 2872 |
|           | Element for Use with RSVP   |      |
|           | The Inverted Stack Table Extension to the Interfaces                | 2864 |
|           | Group MIB   |      |
|           | RTP Payload Format for Real-Time Pointers                           | 2862 |
|           | The Use of HMAC-RIPEMD-160-96 within ESP and AH                     | 2857 |
|           | Textual Conventions for Additional High Capacity                    | 2856 |
| <b>_</b>  |   | 2000 |
|           | Data Types DHCP for IEEE 1394                                       | 2055 |
|           | DUCL TOT TERE TOA4  | 2855 |

|         | Generic Security Service API Version 2 : Java<br>Bindings | 2853  |
|---------|---|-------|
|         | Deliver By SMTP Service Extension                         | 2852  |
| LDIF    | The LDAP Data Interchange Format (LDIF) - Technical       | 2849  |
|         | Specification   |       |
|         | The PINT Service Protocol: Extensions to SIP and SDP      | 2848  |
|         | for IP Access to Telephone Call Services                  |       |
| LIPKEY  | LIPKEY - A Low Infrastructure Public Key Mechanism        | 2847  |
|         | Using SPKM  |       |
|         | GSTN Address Element Extensions in E-mail Services        | 2846  |
| TSIG    | Secret Key Transaction Authentication for DNS (TSIG)      | 2845  |
| GSN     | IP and ARP over HIPPI-6400 (GSN)                          | 2835  |
|         | ARP and IP Broadcast over HIPPI-800                       | 2834  |
|         | Using Digest Authentication as a SASL Mechanism           | 2831  |
| MAIL    | Internet Message Format                                   | 2822  |
|         | Upgrading to TLS Within HTTP/1.1                          | 2817  |
|         | Integrated Service Mappings on IEEE 802 Networks          | 2815  |
|         | SBM (Subnet Bandwidth Manager): A Protocol for            | 2814  |
|         | RSVP-based Admission Control over IEEE 802-style          |       |
|         | networks  |       |
|         | Certificate Management Messages over CMS                  | 2797  |
|         | Mobile IP Network Access Identifier Extension for         | 2794  |
|         | IPv4  |       |
|         | Mail Monitoring MIB                                       | 2789  |
|         | Network Services Monitoring MIB                           | 2788  |
|         | Definitions of Managed Objects for the Virtual            | 2787  |
|         | Router Redundancy Protocol                                |       |
| GRE     | Generic Routing Encapsulation (GRE)                       | 2784  |
| DNS-SRV | A DNS RR for specifying the location of services          | 2782  |
|         | (DNS SRV)   |       |
| MZAP    | Multicast-Scope Zone Announcement Protocol (MZAP)         | 2776  |
| RPSL    | Routing Policy System Replication                         | 2769  |
| SIIT    | Stateless IP/ICMP Translation Algorithm (SIIT)            | 2765  |
|         | RSVP Extensions for Policy Control                        | 2750  |
|         | COPS usage for RSVP                                       | 2749  |
| COPS    | The COPS (Common Open Policy Service) Protocol            | 2748  |
|         | RSVP Cryptographic Authentication                         | 2747  |
|         | RSVP Operation Over IP Tunnels                            | 2746  |
|         | RSVP Diagnostic Messages                                  | 2745  |
|         | Generic Security Service API Version 2 : C-bindings       | 2744  |
|         | Generic Security Service Application Program              | 2743  |
|         | Interface Version 2, Update 1                             | 05.46 |
|         | OSPF for IPv6   | 2740  |
|         | Calendar Attributes for vCard and LDAP                    | 2739  |
|         | Corrections to "A Syntax for Describing Media             | 2738  |
|         | Feature Sets"   | 0000  |
|         | NHRP Support for Virtual Private Networks                 | 2735  |
|         | IPv4 over IEEE 1394                                       | 2734  |
|         |   |       |

| MADCAP    | Multicast Address Dynamic Client Allocation Protocol (MADCAP)                     | 2730 |
|-----------|---|------|
|           | The Transmission of IP Over the Vertical Blanking Interval of a Television Signal | 2728 |
|           | PGP Authentication for RIPE Database Updates                                      | 2726 |
|           | Routing Policy System Security  | 2725 |
|           | Traffic Flow Measurement: Meter MIB   | 2720 |
| TLS       | Addition of Kerberos Cipher Suites to Transport                                   | 2712 |
|           | Layer Security (TLS)  |      |
|           | IPv6 Router Alert Option  | 2711 |
| MLD-IPv6  | Multicast Listener Discovery (MLD) for IPv6                                       | 2710 |
|           | Integrated Services Mappings for Low Speed Networks                               | 2688 |
|           | PPP in a Real-time Oriented HDLC-like Framing                                     | 2687 |
|           | The Multi-Class Extension to Multi-Link PPP                                       | 2686 |
| VPNI      | Virtual Private Networks Identifier   | 2685 |
|           | Multiprotocol Encapsulation over ATM Adaptation Layer 5                           | 2684 |
|           | A Round-trip Delay Metric for IPPM  | 2681 |
|           | A One-way Packet Loss Metric for IPPM   | 2680 |
|           | A One-way Delay Metric for IPPM   | 2679 |
| IPPM-MET  | IPPM Metrics for Measuring Connectivity   | 2678 |
| NHRP-MIB  | Definitions of Managed Objects for the NBMA Next Hop                              | 2677 |
|           | Resolution Protocol (NHRP)  |      |
|           | IPv6 Jumbograms   | 2675 |
|           | Non-Terminal DNS Name Redirection   | 2672 |
| EDNS0     | Extension Mechanisms for DNS (EDNS0)  | 2671 |
|           | Definitions of Managed Objects for the ADSL Lines                                 | 2662 |
| L2TP      | Layer Two Tunneling Protocol "L2TP"   | 2661 |
|           | RTP Payload Format for PureVoice(tm) Audio  | 2658 |
|           | CIP Transport Protocols   | 2653 |
|           | MIME Object Definitions for the Common Indexing Protocol (CIP)                    | 2652 |
| CIP       | The Architecture of the Common Indexing Protocol (CIP)                            | 2651 |
| ODMR-SMTP | ON-DEMAND MAIL RELAY (ODMR) SMTP with Dynamic IP Addresses                        | 2645 |
|           | Internationalization of the File Transfer Protocol                                | 2640 |
|           | Enhanced Security Services for S/MIME   | 2634 |
|           | Diffie-Hellman Key Agreement Method   | 2631 |
|           | NFS Version 2 and Version 3 Security Issues and the                               | 2623 |
|           | NFS Protocol's Use of RPCSEC_GSS and Kerberos V5                                  |      |
| RPSL      | Routing Policy Specification Language (RPSL)                                      | 2622 |
|           | PPP over SONET/SDH  | 2615 |
|           | DHCP Options for Service Location Protocol  | 2610 |
|           | Service Templates and Service: Schemes  | 2609 |
|           | Service Location Protocol, Version 2  | 2608 |
|           | Directory Server Monitoring MIB   | 2605 |
|           | ILMI-Based Server Discovery for NHRP  | 2603 |
|           |   |      |

|            | ILMI-Based Server Discovery for MARS                 | 2602 |
|------------|--|------|
|            | ILMI-Based Server Discovery for ATMARP               | 2601 |
|            | Assured Forwarding PHB Group                         | 2597 |
|            | Using TLS with IMAP, POP3 and ACAP                   | 2595 |
|            | Definitions of Managed Objects for WWW Services      | 2594 |
|            | Transmission of IPv6 Packets over Frame Relay        | 2590 |
|            | Networks Specification                               | 2070 |
| LDAPv3     | Lightweight Directory Access Protocol (v3):          | 2589 |
|            | Extensions for Dynamic Directory Services            |      |
|            | Internet X.509 Public Key Infrastructure Operational | 2585 |
|            | Protocols: FTP and HTTP                              |      |
|            | Definitions of Managed Objects for APPN/HPR in IP    | 2584 |
|            | Networks   |      |
| TCP-CC     | TCP Congestion Control                               | 2581 |
| APP-MIB    | Application Management MIB                           | 2564 |
|            | DHCP Option to Disable Stateless Auto-Configuration  | 2563 |
|            | in IPv4 Clients                                      |      |
| TN2370E-RT | Definitions of Protocol and Managed Objects for      | 2562 |
|            | TN3270E Response Time Collection Using SMIv2         |      |
|            | (TN3270E-RT-MIB)                                     |      |
|            | Base Definitions of Managed Objects for TN3270E      | 2561 |
|            | Using SMIv2  |      |
| PKIX       | X.509 Internet Public Key Infrastructure Online      | 2560 |
|            | Certificate Status Protocol - OCSP                   |      |
| MHTML      | MIME Encapsulation of Aggregate Documents, such as   | 2557 |
|            | HTML (MHTML)   |      |
|            | Use of BGP-4 Multiprotocol Extensions for IPv6       | 2545 |
|            | Inter-Domain Routing                                 |      |
| DHK-DNS    | Storage of Diffie-Hellman Keys in the Domain Name    | 2539 |
|            | System (DNS)   |      |
|            | DSA KEYs and SIGs in the Domain Name System (DNS)    | 2536 |
|            | Media Features for Display, Print, and Fax           | 2534 |
|            | A Syntax for Describing Media Feature Sets           | 2533 |
|            | Extended Facsimile Using Internet Mail               | 2532 |
|            | Indicating Supported Media Features Using Extensions | 2530 |
|            | to DSN and MDN                                       |      |
|            | Transmission of IPv6 over IPv4 Domains without       | 2529 |
|            | Explicit Tunnels                                     |      |
|            | Reserved IPv6 Subnet Anycast Addresses               | 2526 |
| ATM-MIBMAN | Definitions of Managed Objects for ATM Management    | 2515 |
| ATM-TC-OID | Definitions of Textual Conventions and               | 2514 |
|            | OBJECT-IDENTITIES for ATM Management                 |      |
|            | Managed Objects for Controlling the Collection and   | 2513 |
|            | Storage of Accounting Information for                |      |
|            | Connection-Oriented Networks                         | 0=   |
|            | Accounting Information for ATM Networks              | 2512 |
|            | Compressing IP/UDP/RTP Headers for Low-Speed Serial  | 2508 |
|            | Links  |      |

|            | IP Header Compression  | 2507         |
|------------|--|--------------|
|            | Transmission of IPv6 Packets over ARCnet Networks  | 2497         |
|            | Definitions of Managed Objects for the DSO and DSO   | 2494         |
|            | Bundle Interface Type  |              |
| IPv6ATMNET | IPv6 over ATM Networks   | 2492         |
| IPv6-NBMA  | IPv6 over Non-Broadcast Multiple Access (NBMA)   | 2491         |
|            | networks   |              |
|            | DHCP Option for The Open Group's User Authentication Protocol  | 2485         |
|            | PPP LCP Internationalization Configuration Option  | 2484         |
|            | Gateways and MIME Security Multiparts  | 2480         |
|            | Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers                                  | 2474         |
|            | Generic Packet Tunneling in IPv6 Specification   | 2473         |
|            | Transmission of IPv6 Packets over Token Ring Networks  | 2470         |
|            | Transmission of IPv6 Packets over FDDI Networks  | 2467         |
|            | Transmission of IPv6 Packets over Ethernet Networks  | 2464         |
| EBN-MIB    | Definitions of Managed Objects for Extended Border   | 2457         |
|            | Node   |              |
|            | Definitions of Managed Objects for APPN TRAPS  | 2456         |
| APPN-MIB   | Definitions of Managed Objects for APPN  | 2455         |
|            | The ESP CBC-Mode Cipher Algorithms   | 2451         |
| POP3-EXT   | POP3 Extension Mechanism   | 2449         |
| IMIP       | <pre>iCalendar Message-Based Interoperability Protocol   (iMIP)</pre>  | 2447         |
| ITIP       | iCalendar Transport-Independent Interoperability Protocol (iTIP) Scheduling Events, BusyTime, To-dos and Journal Entries | 2446         |
| ICALENDAR  | Internet Calendaring and Scheduling Core Object  | 2445         |
| OTD CACI   | Specification (iCalendar) The One-Time-Password SASL Mechanism   | 2444         |
| OTP-SASL   |  | 2444<br>2439 |
|            | BGP Route Flap Damping   |              |
|            | RTP Payload Format for JPEG-compressed Video   | 2435         |
|            | RTP Payload Format for BT.656 Video Encoding   | 2431         |
|            | FTP Extensions for IPv6 and NATs   | 2428         |
|            | vCard MIME Directory Profile   | 2426         |
| TXT-DIR    | A MIME Content-Type for Directory Information  | 2425         |
| 3DESE      | The PPP Triple-DES Encryption Protocol (3DESE)   | 2420         |
| DESE-bis   | The PPP DES Encryption Protocol, Version 2 (DESE-bis)  | 2419         |
|            | Definitions of Managed Objects for Multicast over UNI 3.0/3.1 based ATM Networks   | 2417         |
|            | The NULL Encryption Algorithm and Its Use With IPsec   | 2410         |
| ESPDES-CBC | The ESP DES-CBC Cipher Algorithm With Explicit IV  | 2405         |
|            | The Use of HMAC-SHA-1-96 within ESP and AH   | 2404         |
|            | The Use of HMAC-MD5-96 within ESP and AH   | 2403         |
| DATA-URL   | The "data" URL scheme  | 2397         |
|            | Content-ID and Message-ID Uniform Resource Locators  | 2392         |
|            | -  |              |

|            | Feature negotiation mechanism for the File Transfer Protocol   | 2389 |
|------------|--|------|
|            | Returning Values from Forms: multipart/form-data   | 2388 |
| MIME-RELAT | The MIME Multipart/Related Content-type  | 2387 |
|            | Protection of BGP Sessions via the TCP MD5 Signature Option  | 2385 |
| POP-URL    | POP URL Scheme   | 2384 |
|            | Interoperation of Controlled-Load Service and  | 2381 |
|            | Guaranteed Service with ATM  |      |
|            | RSVP over ATM Implementation Requirements  | 2380 |
| TIPV3      | Transaction Internet Protocol Version 3.0  | 2371 |
| OSPF-LSA   | The OSPF Opaque LSA Option   | 2370 |
|            | The Use of URLs as Meta-Syntax for Core Mail List<br>Commands and their Transport through Message Header<br>Fields | 2369 |
| URLMAILTO  | The mailto URL scheme  | 2368 |
| PPP-AAL    | PPP Over AAL5  | 2364 |
| PPP-FUNI   | PPP Over FUNI  | 2363 |
| IMAP4NAME  | IMAP4 Namespace  | 2342 |
| NHRP-SCSP  | A Distributed NHRP Service Using SCSP  | 2335 |
| SCSP       | Server Cache Synchronization Protocol (SCSP)   | 2334 |
|            | NHRP Protocol Applicability Statement  | 2333 |
| NHRP       | NBMA Next Hop Resolution Protocol (NHRP)   | 2332 |
| UNI-SIG    | ATM Signalling Support for IP over ATM - UNI Signalling 4.0 Update   | 2331 |
| RTSP       | Real Time Streaming Protocol (RTSP)  | 2326 |
| IPOA-MIB   | Definitions of Managed Objects for Classical IP and ARP Over ATM Using SMIv2 (IPOA-MIB)                            | 2320 |
| DNS-NCACHE | Negative Caching of DNS Queries (DNS NCACHE)   | 2308 |
| OR-ADD     | Representing the O/R Address hierarchy in the X.500 Directory Information Tree                                     | 2294 |
| SUBTABLE   | Representing Tables and Subtrees in the X.500 Directory  | 2293 |
|            | Mobile-IPv4 Configuration Option for PPP IPCP  | 2290 |
| SLM-APP    | Definitions of System-Level Managed Objects for Applications   | 2287 |
|            | Definitions of Managed Objects for IEEE 802.12<br>Repeater Devices   | 2266 |
| RTP-MPEG   | RTP Payload Format for MPEG1/MPEG2 Video   | 2250 |
|            | Using Domains in LDAP/X.500 Distinguished Names  | 2247 |
| ACAP       | ACAP Application Configuration Access Protocol   | 2244 |
| OTP-ER     | OTP Extended Responses   | 2243 |
| NETWAREIP  | NetWare/IP Domain Name and Information   | 2242 |
| DHCP-NDS   | DHCP Options for Novell Directory Services   | 2241 |
| HPR-MIB    | Definitions of Managed Objects for HPR using SMIv2   | 2238 |
| DLUR-MIB   | Definitions of Managed Objects for DLUR using SMIv2  | 2232 |
| MIME-EXT   | MIME Parameter Value and Encoded Word Extensions:<br>Character Sets, Languages, and Continuations                  | 2231 |

| FTPSECEXT  | FTP Security Extensions   | 2228 |
|------------|---|------|
|            | Simple Hit-Metering and Usage-Limiting for HTTP   | 2227 |
|            | IP Broadcast over ATM Networks  | 2226 |
| IP-ATM     | Classical IP and ARP over ATM   | 2225 |
| IMAP4LOGIN | IMAP4 Login Referrals   | 2221 |
|            | A Common Schema for the Internet White Pages Service  | 2218 |
|            | General Characterization Parameters for Integrated Service Network Elements                       | 2215 |
|            | Integrated Services Management Information Base<br>Guaranteed Service Extensions using SMIv2      | 2214 |
|            | Integrated Services Management Information Base using SMIv2                                       | 2213 |
| GQOS       | Specification of Guaranteed Quality of Service  | 2212 |
|            | Specification of the Controlled-Load Network Element Service                                      | 2211 |
| RSVP-IS    | The Use of RSVP with IETF Integrated Services   | 2210 |
| RSVP-IPSEC | RSVP Extensions for IPSEC Data Flows  | 2207 |
| RSVP-MIB   | RSVP Management Information Base using SMIv2  | 2206 |
| RSVP       | Resource ReSerVation Protocol (RSVP) Version 1 Functional Specification                           | 2205 |
| RPCSEC-GSS | RPCSEC_GSS Protocol Specification   | 2203 |
| RTP-RAD    | RTP Payload for Redundant Audio Data  | 2198 |
| IMAPPOPAU  | IMAP/POP AUTHorize Extension for Simple Challenge/Response  | 2195 |
| IMAP4MAIL  | IMAP4 Mailbox Referrals   | 2193 |
|            | Communicating Presentation Information in Internet Messages: The Content-Disposition Header Field | 2183 |
| DNS-CLAR   | Clarifications to the DNS Specification   | 2181 |
| IMAP4-IDLE | IMAP4 IDLE command  | 2177 |
| SLP        | Service Location Protocol   | 2165 |
|            | Use of an X.500/LDAP directory to support MIXER address mapping                                   | 2164 |
| DNS-MCGAM  | Using the Internet DNS to Distribute MIXER Conformant Global Address Mapping (MCGAM)              | 2163 |
|            | Carrying PostScript in X.400 and MIME   | 2160 |
|            | A MIME Body Part for FAX  | 2159 |
|            | X.400 Image Body Parts  | 2158 |
|            | Mapping between X.400 and RFC-822/MIME Message Bodies   | 2157 |
| MIXER      | MIXER (Mime Internet X.400 Enhanced Relay): Mapping between X.400 and RFC 822/MIME                | 2156 |
| MAIL-SERV  | Mailbox Names for Common Services, Roles and Functions  | 2142 |
| URN-SYNTAX | URN Syntax  | 2141 |
| DNS-UPDATE | Dynamic Updates in the Domain Name System (DNS UPDATE)  | 2136 |
| DC-MIB     | Dial Control Management Information Base using SMIv2  | 2128 |
| ISDN-MIB   | ISDN Management Information Base using SMIv2  | 2127 |
| ITOT       | ISO Transport Service on top of TCP (ITOT)  | 2126 |

| BAP-BACP              | The PPP Bandwidth Allocation Protocol (BAP) / The PPP Bandwidth Allocation Control Protocol (BACP)     | 2125         |
|-----------------------|--|--------------|
|                       | VEMMI URL Specification IP Router Alert Option   | 2122<br>2113 |
| 802.3-MIB             | Definitions of Managed Objects for IEEE 802.3 Repeater Devices using SMIv2                             | 2108         |
| PPP-NBFCP<br>RIP-TRIG | The PPP NetBIOS Frames Control Protocol (NBFCP) Triggered Extensions to RIP to Support Demand Circuits | 2097<br>2091 |
| IMAP4-LIT             | IMAP4 non-synchronizing literals   | 2088         |
| IMAP4-QUO<br>HMAC-MD5 | IMAP4 QUOTA extension HMAC-MD5 IP Authentication with Replay Prevention                                | 2087<br>2085 |
|                       | RIPng for IPv6   | 2083         |
| URI-ATT               | Definition of an X.500 Attribute Type and an Object Class to Hold Uniform Resource Identifiers (URIs)  | 2079         |
| MIME-MODEL            | The Model Primary Content Type for Multipurpose Internet Mail Extensions                               | 2077         |
| URLZ39.50             | Uniform Resource Locators for Z39.50   | 2056         |
|                       | Definitions of Managed Objects for APPC using SMIv2  | 2051         |
| PPP-SNACP             | The PPP SNA Control Protocol (SNACP)   | 2043         |
| SMTP-ENH              | SMTP Service Extension for Returning Enhanced Error Codes  | 2034         |
| RTP-CELLB             | RTP Payload Format of Sun's CellB Video Encoding   | 2029         |
| SPKM                  | The Simple Public-Key GSS-API Mechanism (SPKM)   | 2025         |
| DLSW-MIB              | Definitions of Managed Objects for Data Link<br>Switching using SMIv2                                  | 2024         |
| MULTI-UNI             | Support for Multicast over UNI 3.0/3.1 based ATM Networks  | 2022         |
|                       | IEEE 802.12 Interface MIB  | 2020         |
| TCP-ACK               | TCP Selective Acknowledgment Options   | 2018         |
| URL-ACC               | Definition of the URL MIME External-Body Access-Type   | 2017         |
| MIME-PGP              | MIME Security with Pretty Good Privacy (PGP)   | 2015         |
| MORITEILMI            | The Definitions of Managed Objects for IP Mobility Support using SMIv2                                 | 2006         |
|                       | Applicability Statement for IP Mobility Support  | 2005         |
| MINI-IP               | Minimal Encapsulation within IP  | 2004         |
| IPENCAPIP             | IP Encapsulation within IP   | 2003         |
| BGP-COMM              | BGP Communities Attribute  | 1997         |
| DNS-NOTIFY            | A Mechanism for Prompt Notification of Zone Changes (DNS NOTIFY)                                       | 1996         |
| DNS-IZT               | Incremental Zone Transfer in DNS   | 1995         |
| SMTP-ETRN             | SMTP Service Extension for Remote Message Queue Starting   | 1985         |
| SNA                   | Serial Number Arithmetic   | 1982         |
| PPP-FRAME             | PPP in Frame Relay   | 1973         |
| PPP-ECP               | The PPP Encryption Control Protocol (ECP)  | 1968         |
|                       | The Kerberos Version 5 GSS-API Mechanism   | 1964         |
| PPP-CCP               | The PPP Compression Control Protocol (CCP)   | 1962         |

| GSSAPI-SOC | GSS-API Authentication Method for SOCKS Version 5                      | 1961 |
|------------|--|------|
|            | Username/Password Authentication for SOCKS V5                          | 1929 |
| SOCKSV5    | SOCKS Protocol Version 5   | 1928 |
| MIME-Encyp | Security Multiparts for MIME: Multipart/Signed and Multipart/Encrypted | 1847 |
|            | Binding Protocols for ONC RPC Version 2                                | 1833 |
| RPC        | RPC: Remote Procedure Call Protocol Specification Version 2            | 1831 |
|            | The ESP DES-CBC Transform  | 1829 |
|            | Requirements for IP Version 4 Routers                                  | 1812 |
| OSPF-DC    | Extending OSPF to Support Demand Circuits                              | 1793 |
| MIME-EDI   | MIME Encapsulation of EDI Objects                                      | 1767 |
| ATM        | ATM Signaling Support for IP over ATM                                  | 1755 |
| IPNG       | The Recommendation for the IP Next Generation Protocol                 | 1752 |
| MacMIME    | MIME Encapsulation of Macintosh Files - MacMIME                        | 1740 |
| IMAP4-AUTH | I IMAP4 Authentication Mechanisms                                      | 1731 |
| RDBMS-MIB  | Relational Database Management System (RDBMS)                          | 1697 |
|            | Management Information Base (MIB) using SMIv2                          |      |
| PPP-TRANS  | PPP Reliable Transmission  | 1663 |
| PPP-ISDN   | PPP over ISDN  | 1618 |
| PPP-X25    | PPP in X.25  | 1598 |
| RIP-DC     | Extensions to RIP to Support Demand Circuits                           | 1582 |
| TOPT-ENVIR | Telnet Environment Option  | 1572 |
| PPP-LCP    | PPP LCP Extensions   | 1570 |
| PPP/IPMIB  | The Definitions of Managed Objects for the IP                          | 1473 |
|            | Network Control Protocol of the Point-to-Point                         |      |
|            | Protocol   |      |
| PPP/SECMIB | The Definitions of Managed Objects for the Security                    | 1472 |
|            | Protocols of the Point-to-Point Protocol                               |      |
| PPP/LCPMIB | The Definitions of Managed Objects for the Link                        | 1471 |
|            | Control Protocol of the Point-to-Point Protocol                        |      |
| SNMP-IPX   | SNMP over IPX  | 1420 |
| IDENT      | Identification Protocol  | 1413 |
| SNMP-X.25  | SNMP MIB Extension for the X.25 Packet Layer                           | 1382 |
| SNMP-LAPB  | SNMP MIB Extension for X.25 LAPB                                       | 1381 |
| PPP-OSINLC | The PPP OSI Network Layer Control Protocol (OSINLCP)                   | 1377 |
| TOPT-RFC   | Telnet Remote Flow Control Option                                      | 1372 |
| PPP-IPCP   | The PPP Internet Protocol Control Protocol (IPCP)                      | 1332 |
| TCP-EXT    | TCP Extensions for High Performance                                    | 1323 |
|            | Encoding Network Addresses to Support Operation over                   | 1277 |
|            | Non-OSI Lower Layers   |      |
| ICMP-ROUT  | ICMP Router Discovery Messages   | 1256 |
| IS-IS      | Use of OSI IS-IS for routing in TCP/IP and dual                        | 1195 |
|            | environments   |      |
| IP-CMPRS   | Compressing TCP/IP Headers for Low-Speed Serial Links                  | 1144 |
| TOPT-XDL   | Telnet X display location option                                       | 1096 |
| TOPT-TERM  | Telnet terminal-type option  | 1091 |
|            |  |      |

| RFC 5000   | Internet Official Protocol Standards                     | May 2008 |
|------------|--|----------|
|            |  |          |
| TOPT-TS    | Telnet terminal speed option                             | 1079     |
| TOPT-NAWS  | Telnet window size option                                | 1073     |
| TOPT-X.3   | Telnet X.3 PAD option                                    | 1053     |
| TOPT-DATA  | Telnet Data Entry Terminal option: DODIIS                | 1043     |
|            | implementation   |          |
| TOPT-3270  | Telnet 3270 regime option                                | 1041     |
| TOPT-TLN   | Telnet terminal location number option                   | 946      |
| TOPT-OM    | Output marking Telnet option                             | 933      |
| TOPT-TACAC | TACACS user identification Telnet option                 | 927      |
| TOPT-EOR   | Telnet end of record option                              | 885      |
| TOPT-SNDL  | Telnet send-location option                              | 779      |
| TOPT-SUPO  | Telnet SUPDUP-Output option                              | 749      |
| TOPT-SUP   | Telnet SUPDUP option                                     | 736      |
| TOPT-BYTE  | Revised Telnet byte macro option                         | 735      |
| TOPT-LOGO  | Telnet logout option                                     | 727      |
| TOPT-REM   | Remote Controlled Transmission and Echoing Telnet option | 726      |
| TOPT-EXT   |  | 698      |

# 3.5. Best Current Practice Ordered by BCP

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic | Title   | RFC# | BCP# |
|----------|---|------|------|
|          | Variance for The PPP Compression Control Protocol and The PPP Encryption Control Protocol | 1915 | 3    |
|          | An Appeal to the Internet Community to Return Unused IP Networks (Prefixes) to the IANA   | 1917 | 4    |
|          | Address Allocation for Private Internets  | 1918 | 5    |
|          | Guidelines for creation, selection, and   | 1930 | 6    |
|          | registration of an Autonomous System (AS)   |      |      |
|          | Implications of Various Address Allocation Policies for Internet Routing                  | 2008 | 7    |
|          | IRTF Research Group Guidelines and Procedures   | 2014 | 8    |
|          | The Internet Standards Process Revision 3   | 2026 | 9    |
|          | IAB and IESG Selection, Confirmation, and Recall  | 3777 | 10   |
|          | Process: Operation of the Nominating and Recall Committees                                |      |      |
|          | The Organizations Involved in the IETF Standards Process                                  | 2028 | 11   |
|          | Internet Registry IP Allocation Guidelines  | 2050 | 12   |
|          | Media Type Specifications and Registration Procedures                                     | 4288 |      |
|          | Multipurpose Internet Mail Extensions (MIME) Part<br>Four: Registration Procedures        | 4289 | * 13 |

|           | Key words for use in RFCs to Indicate Requirement Levels                              | 2119  | 14 |
|-----------|---|-------|----|
|           | Deployment of the Internet White Pages Service  | 2148  | 15 |
|           | Selection and Operation of Secondary DNS Servers                                      | 2182  | 16 |
|           | Use of DNS Aliases for Network Services   | 2219  | 17 |
|           | IETF Policy on Character Sets and Languages   | 2277  | 18 |
|           | · · · · · · · · · · · · · · · · · · ·   | 2978  | 19 |
|           | IANA Charset Registration Procedures  |       |    |
|           | Classless IN-ADDR.ARPA delegation   | 2317  | 20 |
|           | Expectations for Computer Security Incident Response                                  | 2350  | 21 |
|           | Guide for Internet Standards Writers  | 2360  | 22 |
|           | Administratively Scoped IP Multicast  | 2365  | 23 |
|           | RSVP over ATM Implementation Guidelines   | 2379  | 24 |
|           | IETF Working Group Guidelines and Procedures  | 2418  | 25 |
|           | Guidelines for Writing an IANA Considerations   | 2434  | 26 |
|           | Section in RFCs   |       |    |
|           | Advancement of MIB specifications on the IETF Standards Track                         | 2438  | 27 |
|           | Enhancing TCP Over Satellite Channels using Standard Mechanisms                       | 2488  | 28 |
|           | Anti-Spam Recommendations for SMTP MTAs   | 2505  | 30 |
|           | Media Feature Tag Registration Procedure  | 2506  | 31 |
|           | Reserved Top Level DNS Names  | 2606  | 32 |
|           | <del>-</del>  | 2644  |    |
|           | Changing the Default for Directed Broadcasts in Routers                               | 2044  | 34 |
|           | Guidelines for Writers of RTP Payload Format<br>Specifications                        | 2736  | 36 |
|           | IANA Allocation Guidelines For Values In the<br>Internet Protocol and Related Headers | 2780  | 37 |
|           | Network Ingress Filtering: Defeating Denial of  | 2827  | 38 |
|           | Service Attacks which employ IP Source Address Spoofing                               | 2027  | 30 |
|           | Charter of the Internet Architecture Board (IAB)                                      | 2850  | 39 |
|           | Root Name Server Operational Requirements   | 2870  | 40 |
|           | Congestion Control Principles   | 2914  | 41 |
|           | Domain Name System (DNS) IANA Considerations  | 2929  | 42 |
|           | Procedures and IANA Guidelines for Definition of                                      | 2939  | 43 |
|           | New DHCP Options and Message Types  | 2939  | 43 |
|           | Use of HTTP State Management  | 2964  | 44 |
|           | IETF Discussion List Charter  | 3005  | 45 |
|           | Recommended Internet Service Provider Security Services and Procedures                | 3013  | 46 |
|           | Tags for Identifying Languages  | 4646* | 47 |
|           | Matching of Language Tags   | 4647* | 47 |
|           | End-to-end Performance Implications of Slow Links                                     | 3150  | 48 |
|           | End-to-end Performance Implications of Links with                                     | 3155  | 50 |
| = <b></b> | Errors  | 2122  | 50 |
|           |   |       |    |

|  | -     |    |
|--|-------|----|
| <br>IANA Guidelines for IPv4 Multicast Address Assignments   | 3171  | 51 |
| <br>Management Guidelines & Operational Requirements for the Address and Routing Parameter Area Domain ("arpa")                      | 3172  | 52 |
| <br>GLOP Addressing in 233/8   | 3180  | 53 |
| <br>IETF Guidelines for Conduct  | 3184  | 54 |
| <br>Guidelines for Evidence Collection and Archiving   | 3227  | 55 |
| <br>On the use of HTTP as a Substrate  | 3205  | 56 |
| <br>IANA Considerations for IPv4 Internet Group Management Protocol (IGMP)   | 3228  | 57 |
| <br>Defining the IETF  | 3233  | 58 |
| <br>A Transient Prefix for Identifying Profiles under<br>Development by the Working Groups of the Internet<br>Engineering Task Force | 3349  | 59 |
| <br>Inappropriate TCP Resets Considered Harmful  | 3360  | 60 |
| <br>Strong Security Requirements for Internet Engineering Task Force Standard Protocols  | 3365  | 61 |
| <br>Advice to link designers on link Automatic Repeat reQuest (ARQ)  | 3366  | 62 |
| <br>Session Initiation Protocol for Telephones (SIP-T): Context and Architectures  | 3372  | 63 |
| <br>Internet Assigned Numbers Authority (IANA) Considerations for the Lightweight Directory Access Protocol (LDAP)                   | 4520* | 64 |
| <br>Dynamic Delegation Discovery System (DDDS) Part<br>Five: URI.ARPA Assignment Procedures  | 3405  | 65 |
| <br>Uniform Resource Names (URN) Namespace Definition Mechanisms   | 3406  | 66 |
| <br>Change Process for the Session Initiation Protocol (SIP)   | 3427  | 67 |
| <br>Layer Two Tunneling Protocol (L2TP) Internet Assigned Numbers Authority (IANA) Considerations Update                             | 3438  | 68 |
| <br>TCP Performance Implications of Network Path Asymmetry   | 3449  | 69 |
| <br>Guidelines for the Use of Extensible Markup Language (XML) within IETF Protocols   | 3470  | 70 |
| <br>TCP over Second (2.5G) and Third (3G) Generation Wireless Networks   | 3481  | 71 |
| <br>Guidelines for Writing RFC Text on Security Considerations   | 3552  | 72 |
| <br>An IETF URN Sub-namespace for Registered Protocol Parameters   | 3553  | 73 |
| <br>Coexistence between Version 1, Version 2, and<br>Version 3 of the Internet-standard Network<br>Management Framework              | 3584  | 74 |

RFC 5000 Internet Official Protocol Standards May 2008

| Internet | Official | Protocol | Standards |
|----------|----------|----------|-----------|
|          |          |          |           |

| RFC 5000 | Internet Official Protocol Standards  | May 2 | 800 |
|----------|---|-------|-----|
|          | Session Initiation Protocol (SIP) Basic Call Flow Examples  | 3665  | 75  |
|          | Session Initiation Protocol (SIP) Public Switched<br>Telephone Network (PSTN) Call Flows                  | 3666  | 76  |
|          | IETF ISOC Board of Trustee Appointment Procedures   | 3677  | 77  |
|          | IETF Rights in Contributions  | 3978* | 78  |
|          | RFC 3978 Update to Recognize the IETF Trust   | 4748* | 78  |
|          | Intellectual Property Rights in IETF Technology   | 3979* | 79  |
|          | Clarification of the Third Party Disclosure Procedure in RFC 3979   | 4879* | 79  |
|          | Delegation of E.F.F.3.IP6.ARPA  | 3681  | 80  |
|          | The IETF XML Registry   | 3688  | 81  |
|          | Assigning Experimental and Testing Numbers<br>Considered Useful   | 3692  | 82  |
|          | A Practice for Revoking Posting Rights to IETF Mailing Lists  | 3683  | 83  |
|          | Ingress Filtering for Multihomed Networks   | 3704  | 84  |
|          | Best Current Practices for Third Party Call<br>Control (3pcc) in the Session Initiation Protocol<br>(SIP) | 3725  | 85  |
|          | Determining Strengths For Public Keys Used For Exchanging Symmetric Keys                                  | 3766  | 86  |
|          | Use of Interior Gateway Protocol (IGP) Metric as a second MPLS Traffic Engineering (TE) Metric            | 3785  | 87  |
|          | IANA Considerations for the Point-to-Point Protocol (PPP)   | 3818  | 88  |
|          | Advice for Internet Subnetwork Designers  | 3819  | 89  |
|          | Registration Procedures for Message Header Fields   | 3864* | 90  |
|          | DNS IPv6 Transport Operational Guidelines   | 3901* | 91  |
|          | The IESG and RFC Editor Documents: Procedures   | 3932* | 92  |
|          | A Model for IETF Process Experiments  | 3933* | 93  |
|          | Updates to RFC 2418 Regarding the Management of IETF Mailing Lists  | 3934* | 94  |
|          | A Mission Statement for the IETF  | 3935* | 95  |
|          | Procedures for Modifying the Resource reSerVation Protocol (RSVP)   | 3936* | 96  |
|          | Clarifying when Standards Track Documents may<br>Refer Normatively to Documents at a Lower Level          | 3967* | 97  |
|          | Handling Normative References to Standards-Track Documents  | 4897* | 97  |
|          | The Internet Assigned Number Authority (IANA)   | 3968* | 98  |

Header Field Parameter Registry for the Session

Registry for the Session Initiation Protocol (SIP

The Internet Assigned Number Authority (IANA) Uniform Resource Identifier (URI) Parameter

Early IANA Allocation of Standards Track Code

3969\* 99

4020\* 100

Initiation Protocol (SIP)

Points

| RFC 5000 Internet | Official | Protocol | Standards |
|-------------------|----------|----------|-----------|

May 2008

|           | Structure of the IETF Administrative Support Activity (IASA)                                   | 4071* | 101 |
|-----------|--|-------|-----|
|           | BCP 101 Update for IPR Trust   | 4371* | 101 |
|           | IAB Processes for Management of IETF Liaison Relationships                                     | 4052* | 102 |
|           | Procedures for Handling Liaison Statements to and from the IETF                                | 4053* | 103 |
|           | Terminology for Describing Internet Connectivity   | 4084* | 104 |
|           | Embedding Globally-Routable Internet Addresses Considered Harmful                              | 4085* | 105 |
|           | Randomness Requirements for Security   | 4086* | 106 |
|           | Guidelines for Cryptographic Key Management  | 4107* | 107 |
|           | IP Performance Metrics (IPPM) Metrics Registry   | 4148* | 108 |
|           | Deprecation of "ip6.int"   | 4159* | 109 |
|           | Tunneling Multiplexed Compressed RTP (TCRTP)   | 4170* | 110 |
|           | Guidelines for Authors and Reviewers of MIB Documents  | 4181* | 111 |
|           | RFC 4181 Update to Recognize the IETF Trust  | 4841* | 111 |
|           | Prioritized Treatment of Specific OSPF Version 2 Packets and Congestion Avoidance              | 4222* | 112 |
|           | The IETF Administrative Oversight Committee (IAOC) Member Selection Guidelines and Process     | 4333* | 113 |
|           | BGP Communities for Data Collection  | 4384* | 114 |
|           | Guidelines and Registration Procedures for New URI Schemes                                     | 4395* | 115 |
|           | IANA Allocations for Pseudowire Edge to Edge Emulation (PWE3)                                  | 4446* | 116 |
|           | Interworking between the Session Initiation Protocol (SIP) and QSIG                            | 4497* | 117 |
|           | Considerations for Lightweight Directory Access Protocol (LDAP) Extensions                     | 4521* | 118 |
|           | Session Initiation Protocol (SIP) Call Control -<br>Conferencing for User Agents               | 4579* | 119 |
|           | Source-Specific Protocol Independent Multicast in 232/8  | 4608* | 120 |
|           | Multicast Source Discovery Protocol (MSDP) Deployment Scenarios                                | 4611* | 121 |
| CIDR-STRA | Classless Inter-domain Routing (CIDR): The<br>Internet Address Assignment and Aggregation Plan | 4632* | 122 |
|           | Observed DNS Resolution Misbehavior  | 4697* | 123 |
|           | Specifying Alternate Semantics for the Explicit Congestion Notification (ECN) Field            | 4774* | 124 |
|           | Procedures for Protocol Extensions and Variations  | 4775* | 125 |
|           | Operation of Anycast Services  | 4786* | 126 |
|           | Network Address Translation (NAT) Behavioral Requirements for Unicast UDP                      | 4787* | 127 |
|           | Avoiding Equal Cost Multipath Treatment in MPLS<br>Networks                                    | 4928* | 128 |

| <br>Change Process for Multiprotocol Label Switching (MPLS) and Generalized MPLS (GMPLS) Protocols and Procedures | 4929* | 129 |
|---|-------|-----|
| <br>IANA Considerations for OSPF  | 4940* | 130 |
| <br>Symmetric RTP / RTP Control Protocol (RTCP)   | 4961* | 131 |
| <br>Guidance for Authentication, Authorization, and   | 4962* | 132 |
| Accounting (AAA) Key Management   |       |     |
| <br>Specifying New Congestion Control Algorithms  | 5033* | 133 |
| <br>Email Submission Operations: Access and   | 5068* | 134 |
| Accountability Requirements   |       |     |
| <br>IP Multicast Requirements for a Network Address   | 5135* | 135 |
| Translator (NAT) and a Network Address Port   |       |     |
| Translator (NAPT)   |       |     |

# 3.6. Best Current Practice Ordered by RFC

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic | Title   | BCP‡ | # RFC# |
|----------|---|------|--------|
|          | IP Multicast Requirements for a Network Address<br>Translator (NAT) and a Network Address Port<br>Translator (NAPT) | 135  | 5135*  |
|          | Email Submission Operations: Access and Accountability Requirements   | 134  | 5068*  |
|          | Specifying New Congestion Control Algorithms  | 133  | 5033*  |
|          | Guidance for Authentication, Authorization, and Accounting (AAA) Key Management                                     | 132  | 4962*  |
|          | Symmetric RTP / RTP Control Protocol (RTCP)   | 131  | 4961*  |
|          | IANA Considerations for OSPF  | 130  | 4940*  |
|          | Change Process for Multiprotocol Label Switching (MPLS) and Generalized MPLS (GMPLS) Protocols and Procedures       | 129  | 4929*  |
|          | Avoiding Equal Cost Multipath Treatment in MPLS Networks  | 128  | 4928*  |
|          | Handling Normative References to Standards-Track Documents  | 97   | 4897*  |
|          | Clarification of the Third Party Disclosure Procedure in RFC 3979   | 79   | 4879*  |
|          | RFC 4181 Update to Recognize the IETF Trust   | 111  | 4841*  |
|          | Network Address Translation (NAT) Behavioral<br>Requirements for Unicast UDP  | 127  | 4787*  |
|          | Operation of Anycast Services   | 126  | 4786*  |
|          | Procedures for Protocol Extensions and Variations   | 125  | 4775*  |
|          | Specifying Alternate Semantics for the Explicit Congestion Notification (ECN) Field                                 | 124  | 4774*  |
|          | RFC 3978 Update to Recognize the IETF Trust   | 78   | 4748*  |

| RFC 5000 | Internet | Official | Protocol | Standards |
|----------|----------|----------|----------|-----------|

May 2008

|           | Observed DNS Resolution Misbehavior  | 123  | 4697*          |
|-----------|--|------|----------------|
|           | Matching of Language Tags  | 47   | 4647*          |
|           | Tags for Identifying Languages   | 47   | 4646*          |
| CIDR-STRA | Classless Inter-domain Routing (CIDR): The                                       | 122  | 4632*          |
|           | Internet Address Assignment and Aggregation Plan                                 |      |                |
|           | Multicast Source Discovery Protocol (MSDP)                                       | 121  | 4611*          |
|           | Deployment Scenarios   |      |                |
|           | Source-Specific Protocol Independent Multicast                                   | 120  | 4608*          |
|           | in 232/8   |      |                |
|           | Session Initiation Protocol (SIP) Call Control -                                 | 119  | 4579*          |
|           | Conferencing for User Agents   |      |                |
|           | Considerations for Lightweight Directory Access                                  | 118  | 4521*          |
|           | Protocol (LDAP) Extensions   | - 1  | 45004          |
|           | Internet Assigned Numbers Authority (IANA)                                       | 64   | 4520*          |
|           | Considerations for the Lightweight Directory                                     |      |                |
|           | Access Protocol (LDAP) Interworking between the Session Initiation               | 117  | 4497*          |
|           | Protocol (SIP) and QSIG  | 11/  | 449/"          |
|           | IANA Allocations for Pseudowire Edge to Edge                                     | 116  | 4446*          |
|           | Emulation (PWE3)   | 110  | 4440           |
|           | Guidelines and Registration Procedures for New                                   | 115  | 4395*          |
|           | URI Schemes  | 113  | 1373           |
|           | BGP Communities for Data Collection  | 114  | 4384*          |
|           | BCP 101 Update for IPR Trust   |      | 4371*          |
|           | The IETF Administrative Oversight Committee                                      | 113  | 4333*          |
|           | (IAOC) Member Selection Guidelines and Process                                   |      |                |
|           | Multipurpose Internet Mail Extensions (MIME)                                     | 13   | 4289*          |
|           | Part Four: Registration Procedures   |      |                |
|           | Media Type Specifications and Registration                                       | 13   | 4288*          |
|           | Procedures   |      |                |
|           | Prioritized Treatment of Specific OSPF Version 2                                 | 112  | 4222*          |
|           | Packets and Congestion Avoidance   |      |                |
|           | Guidelines for Authors and Reviewers of MIB                                      | 111  | 4181*          |
|           | Documents  | 110  | 41504          |
|           | Tunneling Multiplexed Compressed RTP (TCRTP)                                     |      | 4170*          |
|           | Deprecation of "ip6.int"   |      | 4159*          |
|           | IP Performance Metrics (IPPM) Metrics Registry                                   |      | 4148*<br>4107* |
|           | Guidelines for Cryptographic Key Management Randomness Requirements for Security |      | 4107"          |
|           | Embedding Globally-Routable Internet Addresses                                   |      | 4085*          |
|           | Considered Harmful   | ±03  | 1000.          |
|           | Terminology for Describing Internet Connectivity                                 | 104  | 4084*          |
|           | Structure of the IETF Administrative Support                                     |      | 4071*          |
|           | Activity (IASA)  |      | -0,-           |
|           | Procedures for Handling Liaison Statements to                                    | 103  | 4053*          |
|           | and from the IETF  | _ 55 |                |
|           | IAB Processes for Management of IETF Liaison                                     | 102  | 4052*          |
|           | Relationships  |      |                |
|           |  |      |                |

| RFC 5000 | Internet Official Protocol Standards   | Мау | 2008           |
|----------|--|-----|----------------|
|          | Early IANA Allocation of Standards Track Code<br>Points  | 100 | 4020*          |
|          | Intellectual Property Rights in IETF Technology<br>IETF Rights in Contributions  |     | 3979*<br>3978* |
|          | The Internet Assigned Number Authority (IANA) Uniform Resource Identifier (URI) Parameter Registry for the Session Initiation Protocol (SIP) |     | 3969*          |
|          | The Internet Assigned Number Authority (IANA) Header Field Parameter Registry for the Session Initiation Protocol (SIP)                      | 98  | 3968*          |
|          | Clarifying when Standards Track Documents may<br>Refer Normatively to Documents at a Lower Level   | 97  | 3967*          |
|          | Procedures for Modifying the Resource reSerVation Protocol (RSVP)  | 96  | 3936*          |
|          | A Mission Statement for the IETF   | 95  | 3935*          |
|          | Updates to RFC 2418 Regarding the Management of IETF Mailing Lists   |     | 3934*          |
|          | A Model for IETF Process Experiments   | 93  | 3933*          |
|          | The IESG and RFC Editor Documents: Procedures  |     | 3932*          |
|          | DNS IPv6 Transport Operational Guidelines  |     | 3901*          |
|          | Registration Procedures for Message Header Fields  |     | 3864*          |
|          | Advice for Internet Subnetwork Designers   |     | 3819           |
|          | IANA Considerations for the Point-to-Point Protocol (PPP)  |     | 3818           |
|          | Use of Interior Gateway Protocol (IGP) Metric as a second MPLS Traffic Engineering (TE) Metric   | 87  | 3785           |
|          | IAB and IESG Selection, Confirmation, and Recall Process: Operation of the Nominating and Recall Committees                                  | 10  | 3777           |
|          | Determining Strengths For Public Keys Used For<br>Exchanging Symmetric Keys  | 86  | 3766           |
|          | Best Current Practices for Third Party Call<br>Control (3pcc) in the Session Initiation<br>Protocol (SIP)                                    | 85  | 3725           |
|          | Ingress Filtering for Multihomed Networks  | 84  | 3704           |
|          | Assigning Experimental and Testing Numbers<br>Considered Useful  | 82  | 3692           |
|          | The IETF XML Registry  | 81  | 3688           |
|          | A Practice for Revoking Posting Rights to IETF<br>Mailing Lists  | 83  | 3683           |
|          | Delegation of E.F.F.3.IP6.ARPA   | 80  | 3681           |
|          | IETF ISOC Board of Trustee Appointment Procedures  | 77  | 3677           |
|          | Session Initiation Protocol (SIP) Public   | 76  | 3666           |

Switched Telephone Network (PSTN) Call Flows

Session Initiation Protocol (SIP) Basic Call 75 3665

Flow Examples

| RFC 5000 | Internet Official Protocol Standards   | May 2008 |
|----------|--|----------|
|          | Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework                    | 74 3584  |
|          | An IETF URN Sub-namespace for Registered Protocol Parameters   | 73 3553  |
|          | Guidelines for Writing RFC Text on Security Considerations   | 72 3552  |
|          | TCP over Second (2.5G) and Third (3G) Generation Wireless Networks   | 71 3481  |
|          | Guidelines for the Use of Extensible Markup<br>Language (XML) within IETF Protocols  | 70 3470  |
|          | TCP Performance Implications of Network Path Asymmetry   | 69 3449  |
|          | Layer Two Tunneling Protocol (L2TP) Internet Assigned Numbers Authority (IANA) Considerations Update                             | 68 3438  |
|          | Change Process for the Session Initiation Protocol (SIP)   | 67 3427  |
|          | Uniform Resource Names (URN) Namespace Definition Mechanisms   | 66 3406  |
|          | Dynamic Delegation Discovery System (DDDS) Part<br>Five: URI.ARPA Assignment Procedures  | 65 3405  |
|          | Session Initiation Protocol for Telephones (SIP-T): Context and Architectures  | 63 3372  |
|          | Advice to link designers on link Automatic<br>Repeat reQuest (ARQ)   | 62 3366  |
|          | Strong Security Requirements for Internet Engineering Task Force Standard Protocols  | 61 3365  |
|          | Inappropriate TCP Resets Considered Harmful  | 60 3360  |
|          | A Transient Prefix for Identifying Profiles<br>under Development by the Working Groups of the<br>Internet Engineering Task Force | 59 3349  |
|          | Defining the IETF  | 58 3233  |
|          | IANA Considerations for IPv4 Internet Group Management Protocol (IGMP)   | 57 3228  |
|          | Guidelines for Evidence Collection and Archiving   | 55 3227  |
|          | On the use of HTTP as a Substrate  | 56 3205  |
|          | IETF Guidelines for Conduct  | 54 3184  |
|          | GLOP Addressing in 233/8   | 53 3180  |
|          | Management Guidelines & Operational Requirements for the Address and Routing Parameter Area Domain ("arpa")                      | 52 3172  |
|          | IANA Guidelines for IPv4 Multicast Address Assignments   | 51 3171  |
|          | End-to-end Performance Implications of Links with Errors   | 50 3155  |
|          | End-to-end Performance Implications of Slow Links  | 48 3150  |

| RFC 5000 | Internet Official Protocol Standards   | May 2008 |
|----------|--|----------|
|          | Recommended Internet Service Provider Security Services and Procedures                                       | 46 3013  |
|          | IETF Discussion List Charter   | 45 3005  |
|          | IANA Charset Registration Procedures   | 19 2978  |
|          | Use of HTTP State Management   | 44 2964  |
|          | Procedures and IANA Guidelines for Definition of<br>New DHCP Options and Message Types                       | 43 2939  |
|          | Domain Name System (DNS) IANA Considerations   | 42 2929  |
|          | Congestion Control Principles  | 41 2914  |
|          | Root Name Server Operational Requirements  | 40 2870  |
|          | Charter of the Internet Architecture Board (IAB)   | 39 2850  |
|          | Network Ingress Filtering: Defeating Denial of<br>Service Attacks which employ IP Source Address<br>Spoofing | 38 2827  |
|          | IANA Allocation Guidelines For Values In the<br>Internet Protocol and Related Headers                        | 37 2780  |
|          | Guidelines for Writers of RTP Payload Format<br>Specifications   | 36 2736  |
|          | Changing the Default for Directed Broadcasts in Routers  | 34 2644  |
|          | Reserved Top Level DNS Names   | 32 2606  |
|          | Media Feature Tag Registration Procedure   | 31 2506  |
|          | Anti-Spam Recommendations for SMTP MTAs  | 30 2505  |
|          | Enhancing TCP Over Satellite Channels using Standard Mechanisms  | 28 2488  |
|          | Advancement of MIB specifications on the IETF<br>Standards Track   | 27 2438  |
|          | Guidelines for Writing an IANA Considerations<br>Section in RFCs   | 26 2434  |
|          | IETF Working Group Guidelines and Procedures   | 25 2418  |
|          | RSVP over ATM Implementation Guidelines  | 24 2379  |
|          | Administratively Scoped IP Multicast   | 23 2365  |
|          | Guide for Internet Standards Writers   | 22 2360  |
|          | Expectations for Computer Security Incident Response   | 21 2350  |
|          | Classless IN-ADDR.ARPA delegation  | 20 2317  |
|          | IETF Policy on Character Sets and Languages  | 18 2277  |
|          | Use of DNS Aliases for Network Services  | 17 2219  |
|          | Selection and Operation of Secondary DNS Servers   | 16 2182  |
|          | Deployment of the Internet White Pages Service   | 15 2148  |
|          | Key words for use in RFCs to Indicate<br>Requirement Levels  | 14 2119  |
|          | Internet Registry IP Allocation Guidelines   | 12 2050  |
|          | The Organizations Involved in the IETF Standards Process   | 11 2028  |
|          | The Internet Standards Process Revision 3  | 9 2026   |
|          | IRTF Research Group Guidelines and Procedures  | 8 2014   |

| RFC 5000 | Internet Official Protocol Standards             | May 2008 |
|----------|--|----------|
|          |  |          |
|          | Implications of Various Address Allocation       | 7 2008   |
|          | Policies for Internet Routing                    |          |
|          | Guidelines for creation, selection, and          | 6 1930   |
|          | registration of an Autonomous System (AS)        |          |
|          | Address Allocation for Private Internets         | 5 1918   |
|          | An Appeal to the Internet Community to Return    | 4 1917   |
|          | Unused IP Networks (Prefixes) to the IANA        |          |
|          | Variance for The PPP Compression Control         | 3 1915   |
|          | Protocol and The PPP Encryption Control Protocol |          |

# 3.7. Experimental Protocols

[Note: an asterisk at the end of a line indicates a change from the previous edition of this document.]

| Mnemonic | Title   | RFC#  |
|----------|---|-------|
|          | Experiment in Exploratory Group Formation within the Internet Engineering Task Force (IETF)                             | 5111* |
|          | The Extensible Authentication Protocol-Internet Key Exchange Protocol version 2 (EAP-IKEv2) Method                      | 5106* |
|          | Using OpenPGP Keys for Transport Layer Security (TLS) Authentication  | 5081* |
|          | Explicit Multicast (Xcast) Concepts and Options   | 5058* |
|          | Bundle Protocol Specification   | 5050* |
|          | IPv6 Router Advertisement Option for DNS Configuration  | 5006* |
|          | Mobile IPv4 Fast Handovers  | 4988* |
|          | OSPF-xTE: Experimental Extension to OSPF for Traffic Engineering  | 4973* |
|          | DNS Security (DNSSEC) Opt-In  | 4956* |
|          | Atom License Extension  | 4946* |
|          | Abstract Syntax Notation X (ASN.X) Representation of  | 4914* |
|          | Encoding Instructions for the XML Encoding Rules (XER   |       |
|          | Abstract Syntax Notation X (ASN.X) Representation of Encoding Instructions for the Generic String Encoding Rules (GSER) | 4913* |
|          | Abstract Syntax Notation X (ASN.X)  | 4912* |
|          | Encoding Instructions for the Robust XML Encoding Rules (RXER)  | 4911* |
|          | Robust XML Encoding Rules (RXER) for Abstract Syntax Notation One (ASN.1)   | 4910* |
|          | Multi-homing for small scale fixed network Using Mobile IP and NEMO   | 4908* |
|          | Low-Latency Handoffs in Mobile IPv4   | 4881* |
|          | Mobile IPv4 Regional Registration   | 4857* |
|          | An IPv6 Prefix for Overlay Routable Cryptographic Hash Identifiers (ORCHID)   | 4843* |

| <br>TCP Friendly Rate Control (TFRC): The Small-Packet (SP) Variant                               | 4828* |
|---|-------|
| <br>OSPF Link-Local Signaling   | 4813* |
| <br>Quick-Start for TCP and IP  | 4782* |
| <br>The Intrusion Detection Exchange Protocol (IDXP)  | 4767* |
| <br>The Intrusion Detection Message Exchange Format (IDMEF)                                       | 4765* |
| <br>The EAP-PSK Protocol: A Pre-Shared Key Extensible Authentication Protocol (EAP) Method        | 4764* |
| <br>Multiple Authentication Exchanges in the Internet<br>Key Exchange (IKEv2) Protocol            | 4739* |
| <br>The Dynamic Source Routing Protocol (DSR) for Mobile Ad Hoc Networks for IPv4                 | 4728* |
| <br>Netnews Administration System (NAS)   | 4707* |
| <br>IETF Operational Notes  | 4693* |
| <br>TCP-Friendly Multicast Congestion Control (TFMCC):  | 4654* |
| Protocol Specification  |       |
| <br>Improving the Robustness of TCP to Non-Congestion Events                                      | 4653* |
| <br>Experiment in Long-Term Suspensions From Internet Engineering Task Force (IETF) Mailing Lists | 4633* |
| <br>Multicast Source Discovery Protocol (MSDP) MIB  | 4624* |
| <br>IPv6 Node Information Queries   | 4620* |
| <br>NEC's Simple Middlebox Configuration (SIMCO) Protocol Version 3.0                             | 4540* |
| <br>The Lightweight Directory Access Protocol (LDAP) Content Synchronization Operation            | 4533* |
| <br>Lightweight Directory Access Protocol (LDAP) Turn Operation                                   | 4531* |
| <br>The Managed Object Aggregation MIB  | 4498* |
| <br>Repeated Authentication in Internet Key Exchange (IKEv2) Protocol                             | 4478* |
| <br>Derivation of DNS Name Predecessor and Successor  | 4471* |
| <br>Web Distributed Authoring and Versioning (WebDAV) Redirect Reference Resources                | 4437* |
| <br>Selectively Reliable Multicast Protocol (SRMP)  | 4410* |
| <br>Sender Policy Framework (SPF) for Authorizing Use of Domains in E-Mail, Version 1             | 4408* |
| <br>Purported Responsible Address in E-Mail Messages  | 4407* |
| <br>Sender ID: Authenticating E-Mail  | 4406* |
| <br>SMTP Service Extension for Indicating the Responsible Submitter of an E-Mail Message          | 4405* |
| <br>Neighbor Discovery Proxies (ND Proxy)   | 4389* |
| <br>Internet X.509 Public Key Infrastructure Repository   | 4386* |
| Locator Service   |       |
| <br>Calendar Access Protocol (CAP)  | 4324* |
| <br>Datatypes for Web Distributed Authoring and   | 4316* |
| Versioning (WebDAV) Properties  |       |

| ISATAP  | <pre>Intra-Site Automatic Tunnel Addressing Protocol   (ISATAP)</pre>  | 4214*          |
|---------|--|----------------|
|         | Hierarchical Mobile IPv6 Mobility Management (HMIPv6) Forward RTO-Recovery (F-RTO): An Algorithm for Detecting Spurious Retransmission Timeouts with TCP and the Stream Control Transmission Protocol (SCTP) | 4140*<br>4138* |
|         | Russian Dolls Bandwidth Constraints Model for<br>Diffserv-aware MPLS Traffic Engineering   | 4127*          |
|         | Max Allocation with Reservation Bandwidth Constraints Model for Diffserv-aware MPLS Traffic Engineering & Performance Comparisons  | 4126*          |
|         | Maximum Allocation Bandwidth Constraints Model for<br>Diffserv-aware MPLS Traffic Engineering  | 4125*          |
|         | Fast Handovers for Mobile IPv6   | 4068*          |
|         | Context Transfer Protocol (CXTP)   | 4067*          |
|         | Candidate Access Router Discovery (CARD)   | 4066*          |
|         | Instructions for Seamoby and Experimental Mobility Protocol IANA Allocations   | 4065*          |
|         | BinaryTime: An Alternate Format for Representing Date and Time in ASN.1  | 4049*          |
|         | Extensions to Support Efficient Carrying of Multicast Traffic in Layer-2 Tunneling Protocol (L2TP)   | 4045*          |
|         | Maximum Transmission Unit Signalling Extensions for the Label Distribution Protocol  | 3988*          |
|         | Protocol Independent Multicast - Dense Mode (PIM-DM): Protocol Specification (Revised)   | 3973*          |
|         | Real-time Transport Protocol (RTP) Payload Format for internet Low Bit Rate Codec (iLBC) Speech  | 3952*          |
|         | Internet Low Bit Rate Codec (iLBC)   | 3951*          |
|         | Negative-Acknowledgment (NACK)-Oriented Reliable Multicast (NORM) Building Blocks  | 3941*          |
|         | Negative-acknowledgment (NACK)-Oriented Reliable Multicast (NORM) Protocol   | 3940*          |
|         | Alternative Decision Making Processes for<br>Consensus-Blocked Decisions in the IETF   | 3929*          |
|         | FLUTE - File Delivery over Unidirectional Transport  | 3926*          |
| DNS-SRV | Remote Service Discovery in the Service Location<br>Protocol (SLP) via DNS SRV   | 3832           |
|         | Next Generation Structure of Management Information (SMIng) Mappings to the Simple Network Management Protocol (SNMP)  | 3781           |
|         | SMIng - Next Generation Structure of Management Information  | 3780           |
|         | Limited Slow-Start for TCP with Large Congestion Windows   | 3742           |
|         | Wave and Equation Based Rate Control (WEBRC)<br>Building Block   | 3738           |

|     | Using TCP Duplicate Selective Acknowledgement (DSACKs) and Stream Control Transmission Protocol (SCTP) Duplicate Transmission Sequence Numbers (TSNs) to Detect Spurious Retransmissions | 3708 |
|-----|--|------|
|     | Compact Forward Error Correction (FEC) Schemes   | 3695 |
|     | Topology Dissemination Based on Reverse-Path Forwarding (TBRPF)  | 3684 |
|     | Domain Administrative Data in Lightweight Directory Access Protocol (LDAP)   | 3663 |
|     | The Mailbox Update (MUPDATE) Distributed Mailbox Database Protocol   | 3656 |
|     | HighSpeed TCP for Large Congestion Windows   | 3649 |
|     | Optimized Link State Routing Protocol (OLSR)   | 3626 |
|     | Multicast Source Discovery Protocol (MSDP)   | 3618 |
|     | Ad hoc On-Demand Distance Vector (AODV) Routing  | 3561 |
|     | Robust Explicit Congestion Notification (ECN) Signaling with Nonces  | 3540 |
|     | Using Extensible Markup Language-Remote Procedure<br>Calling (XML-RPC) in Blocks Extensible Exchange<br>Protocol (BEEP)  | 3529 |
|     | Mesh-enhanced Service Location Protocol (mSLP)   | 3528 |
|     | The Eifel Detection Algorithm for TCP  | 3522 |
|     | TCP Congestion Control with Appropriate Byte Counting (ABC)  | 3465 |
|     | Layered Coding Transport (LCT) Building Block  | 3451 |
|     | Asynchronous Layered Coding (ALC) Protocol Instantiation   | 3450 |
|     | Simple Network Management Protocol Over Transmission<br>Control Protocol Transport Mapping   | 3430 |
|     | Select and Sort Extensions for the Service Location Protocol (SLP)   | 3421 |
|     | The Application Exchange (APEX) Presence Service   | 3343 |
|     | Dual Stack Hosts Using "Bump-in-the-API" (BIA)   | 3338 |
|     | Policy-Based Accounting  | 3334 |
|     | PGM Reliable Transport Protocol Specification  | 3208 |
|     | Domain Security Services using S/MIME  | 3183 |
| SMX | Script MIB Extensibility Protocol Version 1.1  | 3179 |
|     | ISO/IEC 9798-3 Authentication SASL Mechanism   | 3163 |
|     | Electronic Signature Policies  | 3125 |
|     | A DNS RR Type for Lists of Address Prefixes (APL RR)   | 3123 |
|     | Finding an RSIP Server with SLP  | 3105 |
|     | RSIP Support for End-to-end IPsec  | 3104 |
|     | Realm Specific IP: Protocol Specification  | 3103 |
|     | Realm Specific IP: Framework   | 3102 |
|     | OpenLDAP Root Service An experimental LDAP referral service  | 3088 |
|     | Notification and Subscription for SLP  | 3082 |
|     | MPLS Loop Prevention Mechanism   | 3063 |

|           | Internet X.509 Public Key Infrastructure Data<br>Validation and Certification Server Protocols | 3029 |
|-----------|--|------|
|           | Unified Memory Space Protocol Specification  | 3018 |
| SAP       | Session Announcement Protocol  | 2974 |
|           | Protocol Independent Multicast MIB for IPv4  | 2934 |
| MASC      | The Multicast Address-Set Claim (MASC) Protocol  | 2909 |
|           | Generic AAA Architecture   | 2903 |
|           | DNS Extensions to Support IPv6 Address Aggregation and Renumbering                             | 2874 |
|           | TCP Congestion Window Validation   | 2861 |
| TSWTCM    | A Time Sliding Window Three Colour Marker (TSWTCM)   | 2859 |
|           | OSPF over ATM and Proxy-PAR  | 2844 |
| PPP-SDL   | PPP over Simple Data Link (SDL) using SONET/SDH with ATM-like framing                          | 2823 |
|           | Diffie-Helman USM Key Management Information Base and Textual Convention                       | 2786 |
|           | An HTTP Extension Framework  | 2774 |
|           | Encryption using KEA and SKIPJACK  | 2773 |
|           | Sampling of the Group Membership in RTP  | 2762 |
|           | Definitions of Managed Objects for Service Level   | 2758 |
|           | Agreements Performance Monitoring  |      |
| HTCP      | Hyper Text Caching Protocol (HTCP/0.0)   | 2756 |
|           | RTFM: New Attributes for Traffic Flow Measurement  | 2724 |
|           | PPP EAP TLS Authentication Protocol  | 2716 |
|           | SPKI Certificate Theory  | 2693 |
|           | SPKI Requirements  | 2692 |
|           | QoS Routing Mechanisms and OSPF Extensions   | 2676 |
| DNS       | Binary Labels in the Domain Name System  | 2673 |
|           | The Secure HyperText Transfer Protocol   | 2660 |
|           | Security Extensions For HTML   | 2659 |
|           | LDAPv2 Client vs. the Index Mesh   | 2657 |
|           | Registration Procedures for SOIF Template Types  | 2656 |
|           | CIP Index Object Format for SOIF Objects   | 2655 |
|           | A Tagged Index Object for use in the Common Indexing Protocol                                  | 2654 |
|           | An LDAP Control and Schema for Holding Operation Signatures                                    | 2649 |
|           | Mapping between LPD and IPP Protocols  | 2569 |
| IPP-RAT   | Rationale for the Structure of the Model and   | 2568 |
|           | Protocol for the Internet Printing Protocol  | 0-4- |
| IPP-DG    | Design Goals for an Internet Printing Protocol   | 2567 |
| DNS-INFO  | Detached Domain Name System (DNS) Information  | 2540 |
|           | Photuris: Extended Schemes and Attributes  | 2523 |
|           | Photuris: Session-Key Management Protocol  | 2522 |
| ICMP-SEC  | ICMP Security Failures Messages  | 2521 |
|           | NHRP with Mobile NHCs  | 2520 |
|           | URI Resolution Services Necessary for URN Resolution   | 2483 |
| MARS-SCSP | A Distributed MARS Service Using SCSP  | 2443 |

|            | Domain Names and Company Name Retrieval  | 2345         |
|------------|--|--------------|
| RTP-MPEG   | RTP Payload Format for Bundled MPEG  | 2343         |
|            | Intra-LIS IP multicast among routers over ATM using Sparse Mode PIM  | 2337         |
|            | The Safe Response Header Field   | 2310         |
| LDAP-NIS   | An Approach for Using LDAP as a Network Information Service  | 2307         |
| HTTP-RVSA  | HTTP Remote Variant Selection Algorithm RVSA/1.0   | 2296         |
| TCN-HTTP   | Transparent Content Negotiation in HTTP  | 2295         |
| TOPT-COMPO | Telnet Com Port Control Option   | 2217         |
|            | A Trivial Convention for using HTTP in URN Resolution  | 2169         |
| MAP-MAIL   | MaXIM-11 - Mapping between X.400 / Internet mail and Mail-11 mail  | 2162         |
| MIME-ODA   | A MIME Body Part for ODA   | 2161         |
| OSPF-DIG   | OSPF with Digital Signatures   | 2154         |
| IP-SCSI    | Encapsulating IP with the Small Computer System Interface  | 2143         |
| X.500-NAME | Managing the X.500 Root Naming Context   | 2120         |
| GKMP-ARCH  | Group Key Management Protocol (GKMP) Architecture  | 2094         |
| GKMP-SPEC  | Group Key Management Protocol (GKMP) Specification   | 2093         |
| TFTP-MULTI | TFTP Multicast Option  | 2090         |
| IP-Echo    | IP Echo Host Service   | 2075         |
| TOPT-CHARS | TELNET CHARSET Option  | 2066         |
| URAS       | Uniform Resource Agents (URAs)   | 2016         |
| GPS-AR     | GPS-Based Addressing and Routing   | 2009         |
| ETFTP      | Experiments with a Simple File Transfer Protocol for Radio Links using Enhanced Trivial File Transfer Protocol (ETFTP) | 1986         |
| SMKD       | Scalable Multicast Key Distribution  | 1949         |
| DNS-LOC    | A Means for Expressing Location Information in the Domain Name System  | 1876         |
| SGML-MT    | SGML Media Types   | 1874         |
| CONT-MT    | Message/External-Body Content-ID Access Type   | 1873         |
| UNARP      | ARP Extension - UNARP  | 1868         |
| ESP3DES    | The ESP Triple DES Transform   | 1851         |
|            | SMTP 521 Reply Code  | 1846         |
|            | SMTP Service Extension for Checkpoint/Restart  | 1845         |
|            | Communicating Presentation Information in Internet Messages: The Content-Disposition Header                            | 1806         |
|            | Schema Publishing in X.500 Directory   | 1804         |
|            | MHS use of the X.500 Directory to support MHS Routing  | 1801         |
|            | Class A Subnet Experiment  | 1797         |
| TCP/IPXMIB | TCP/IPX Connection Mib Specification   | 1792         |
|            | TCP And UDP Over IPX Networks With Fixed Path MTU  | 1791         |
| ICMP-DM    | ICMP Domain Name Messages  | 1788         |
| CLNP-MULT  | Host Group Extensions for CLNP Multicasting  | 1768         |
| OSPF-OVFL  | OSPF Database Overflow   | 1765<br>1756 |
| RWP        | Remote Write Protocol - Version 1.0  | 1756         |

| MADD        | NDMA Address Described Described (NADD)              | 1725 |
|-------------|--|------|
| NARP        | NBMA Address Resolution Protocol (NARP)              | 1735 |
|             | DNS Encoding of Geographical Location                | 1712 |
| TCP-POS     | An Extension to TCP: Partial Order Service           | 1693 |
| T/TCP       | T/TCP TCP Extensions for Transactions Functional     | 1644 |
|             | Specification  |      |
| MIME-UNI    | Using Unicode with MIME                              | 1641 |
| FOOBAR      | FTP Operation Over Big Address Records (FOOBAR)      | 1639 |
| X500-CHART  | Charting Networks in the X.500 Directory             | 1609 |
| X500-DIR    | Representing IP Information in the X.500 Directory   | 1608 |
| SNMP-DPI    | Simple Network Management Protocol Distributed       | 1592 |
|             | Protocol Interface Version 2.0                       |      |
| CLNP-TUBA   | Use of ISO CLNP in TUBA Environments                 | 1561 |
| REM-PRINT   | Principles of Operation for the TPC.INT Subdomain:   | 1528 |
|             | Remote Printing Technical Procedures                 |      |
| DASS        | DASS - Distributed Authentication Security Service   | 1507 |
| EHF-MAIL    | Encoding Header Field for Internet Messages          | 1505 |
| RAP         | RAP: Internet Route Access Protocol                  | 1476 |
|             |  | 1475 |
| TP-IX       | TP/IX: The Next Internet                             | _    |
|             | Routing Coordination for X.400 MHS Services Within a | 1465 |
|             | Multi Protocol / Multi Network Environment Table     |      |
|             | Format V3 for Static Routing                         |      |
|             | Using the Domain Name System To Store Arbitrary      | 1464 |
|             | String Attributes                                    |      |
| IRCP        | Internet Relay Chat Protocol                         | 1459 |
| SIFT        | SIFT/UFT: Sender-Initiated/Unsolicited File Transfer | 1440 |
| DIR-ARP     | Directed ARP   | 1433 |
| TEL-SPX     | Telnet Authentication: SPX                           | 1412 |
| TEL-KER     | Telnet Authentication: Kerberos Version 4            | 1411 |
| TRACE-IP    | Traceroute Using an IP Option                        | 1393 |
| DNS-IP      | An Experiment in DNS Based IP Routing                | 1383 |
| RMCP        | Remote Mail Checking Protocol                        | 1339 |
| MSP2        | Message Send Protocol 2                              | 1312 |
| DSLCP       | Dynamically Switched Link Control Protocol           | 1307 |
|             | X.500 and Domains                                    | 1279 |
| IN-ENCAP    | Scheme for an internet encapsulation protocol:       | 1241 |
| III DIVOIII | Version 1  |      |
| CLNS-MIB    | CLNS MIB for use with Connectionless Network         | 1238 |
| CHIND MID   | Protocol (ISO 8473) and End System to Intermediate   | 1230 |
|             | System (ISO 9542)                                    |      |
| GEDD        | Coherent File Distribution Protocol                  | 1235 |
| CFDP        |  |      |
| IP-AX.25    | Internet protocol encapsulation of AX.25 frames      | 1226 |
| ALERTS      | Techniques for managing asynchronously generated     | 1224 |
|             | alerts   | 1001 |
| MPP         | Message Posting Protocol (MPP)                       | 1204 |
| SNMP-BULK   | Bulk Table Retrieval with the SNMP                   | 1187 |
| DNS-RR      | New DNS RR Definitions                               | 1183 |
| IMAP2       | Interactive Mail Access Protocol: Version 2          | 1176 |

| RFC 5000   | Internet Official Protocol Standards                               | May 2008 |
|------------|--|----------|
|            |  |          |
| NTP-OSI    | Network Time Protocol (NTP) over the OSI Remote Operations Service | 1165     |
| DMF-MAIL   | Digest message format  | 1153     |
| RDP        | Version 2 of the Reliable Data Protocol (RDP)                      | 1151     |
|            | Standard for the transmission of IP datagrams on avian carriers    | 1149     |
| TCP-ACO    | TCP alternate checksum options                                     | 1146     |
|            | The Q Method of Implementing TELNET Option                         | 1143     |
|            | Negotiation  |          |
| IP-DVMRP   | Distance Vector Multicast Routing Protocol                         | 1075     |
| VMTP       | VMTP: Versatile Message Transaction Protocol                       | 1045     |
| COOKIE-JAR | Distributed-protocol authentication scheme                         | 1004     |
| NETBLT     | NETBLT: A bulk data transfer protocol                              | 998      |
| IRTP       | Internet Reliable Transaction Protocol functional                  | 938      |
|            | and interface specification  |          |
| LDP        | Loader Debugger Protocol   | 909      |
| RDP        | Reliable Data Protocol   | 908      |
| RLP        | Resource Location Protocol   | 887      |

## 4. Security Considerations

This memo does not affect the technical security of the Internet, but it does cite a number of important security specifications.

# Editors' Addresses

RFC Editor USC/Information Sciences Institute 4676 Admiralty Way Marina del Rey, CA 90292

EMail: rfc-editor@rfc-editor.org

### Full Copyright Statement

Copyright (C) The IETF Trust (2008).

This document is subject to the rights, licenses and restrictions contained in BCP 78 and at http://www.rfc-editor.org/copyright.html, and except as set forth therein, the authors retain all their rights.

This document and the information contained herein are provided on an "AS IS" basis and THE CONTRIBUTOR, THE ORGANIZATION HE/SHE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY, THE IETF TRUST AND THE INTERNET ENGINEERING TASK FORCE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

#### Intellectual Property

The IETF takes no position regarding the validity or scope of any Intellectual Property Rights or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; nor does it represent that it has made any independent effort to identify any such rights. Information on the procedures with respect to rights in RFC documents can be found in BCP 78 and BCP 79.

Copies of IPR disclosures made to the IETF Secretariat and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this specification can be obtained from the IETF on-line IPR repository at http://www.ietf.org/ipr.

The IETF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard. Please address the information to the IETF at ietf-ipr@ietf.org.